

# JVC

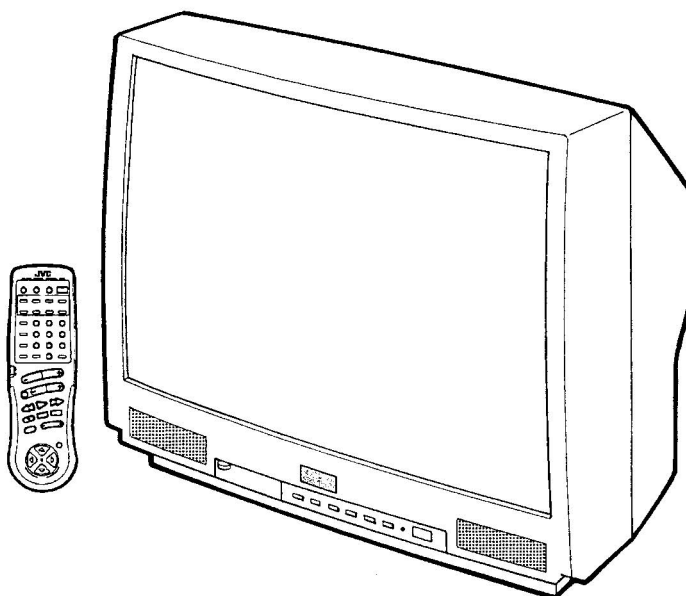
## SERVICE MANUAL

### COLOUR TELEVISION

BASIC CHASSIS

GB

## AV-T3885(BR)



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# SPECIFICATIONS

Item	Contents
<b>Dimensions ( W × H × D )</b>	860mm × 765mm × 603mm 33-7/8" × 30-1/8" × 23-3/4"
<b>Mass</b>	69.2 kg 152.3 lbs
<b>Reception Format</b> TV RF System Color System Sound System	CCIR(M) & (N) NTSC / PAL-M / PAL-N BTSC (Multi Channel Sound)
<b>Reception Range</b> (Receiving Channels and Frequency) VL Band VH Band UHF Band	(02 ~ 06) 55.25MHz ~ 83.25MHz (07 ~ 13) 175.25MHz ~ 211.25MHz (14 ~ 69) 471.25MHz ~ 801.25MHz
<b>CATV Channels and Frequency</b>	(55.25MHz ~ 801.25MHz) Sub Mid, Mid, Super, Hyper and Ultra bands
<b>Closed Caption System</b>	C1, C2, F1, F2 Available
<b>Intermediate Frequency</b> Video IF Carrier Sound IF Carrier Color Sub Carrier	45.75MHz 41.25MHz (4.5MHz) NTSC : 3.579545MHz PAL-M : 3.57561149MHz PAL-N : 3.58205625MHz
<b>Power Input</b> <b>RATING</b> <b>OPERATING</b> <b>Power Consumption</b>	AC 120~240V(50 / 60Hz) AC 90~260V(50 / 60Hz) 145W ( Max. ), 105W (Avg.)
<b>Picture Tube</b> Screen Size High Voltage	38inch / 96.5cm , measured diagonally, Full square 32.0kV ±1.3kV ( at zero beam current )
<b>Surround System</b>	Build in HYPER SURROUND
<b>Audio Power Output</b>	5W + 5W
<b>External Input ( 1, 2 )</b> Video Input Audio Input	(Front input terminal is bridge connected with Input 2 terminal) 1Vp-p, 75Ω 500mVrms ( -4dBs ), High impedance
<b>S-Video Input</b>	Y : 1Vp-p positive, 75Ω ( Negative sync provided ) C : 0.286Vp-p ( burst signal ), 75Ω
<b>Audio Output</b>	More than 0 to 1550mVrms ( +6dBs ) Low impedance ( 400 Hz when modulated 100% )
<b>Speakers</b> <b>Antenna Input Impedance</b>	8cm × 12cm Oval Type × 2 75Ω ( VHF/UHF ) Terminal, F-Type Connector
<b>Remote Control Unit</b>	RM-C735-1A (AA/R6/UM-3 dry battery × 2)

Design & specifications subject to change without notice



# SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**  
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⊥) side GND and EARTH : (⊕) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.  
If above note will not be kept, a fuse or any parts will be broken.
5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

## 9. Isolation Check

### (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

### (1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

This method of test requires a test equipment not generally found in the service trade.

### (2) Leakage Current Check

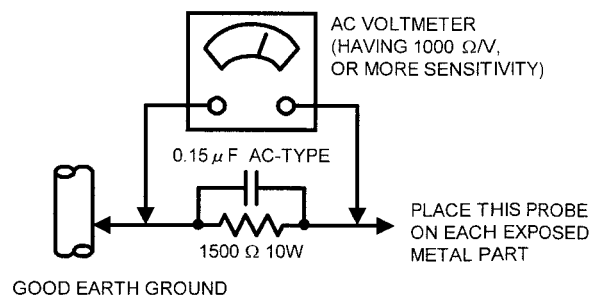
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

#### ● Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



# FEATURES

- New chassis design enables use of interactive on-screen control.
- Comb filter improved picture quality.
- Full-square CRT reproduces fine textured picture in every detail.
- Wide range voltage AC power input.
- TELETEXT broadcast can be viewed.
- With AUDIO, VIDEO input terminal.
- By the sound multiplex broadcast with MTS system, you can enjoy music programs and sporting events with live realism.
- S-VIDEO input terminal for taking best advantage of Super VHS.
- Variable audio output terminal.
- I<sup>2</sup>C bus control utilities single chip ICs.
- By selecting the THEATER STATUS picture, you can enjoy pictures with powerful effects.
- Muting button can reduce the audio level to zero instantly.

# JVC

## Manual de Instruções


**Modelos:**

**AV-T3885 AV-T3487**

Leia o Manual de Instruções. Desta forma, você estará assegurando uma operação segura e livre de erros.

### PRECAUÇÕES IMPORTANTES DE SEGURANÇA


**JVC**  
VICTOR COMPANY OF JAPAN, LIMITED




**AVISO**


**RISCO DE CHOQUE.**

**NÃO ABRA.**



**PRECAUÇÃO:** Para evitar o risco de choque não remova o gabinete do televisor. No interior do aparelho não existem peças que o consumidor possa trocar. Solicite sempre o Serviço Autorizado JVC.

 O símbolo da flecha em forma de raio dentro do triângulo significa que as pessoas devem ficar alertas para o perigo da alta voltagem ao redor da região onde está aplicado esta etiqueta.

 O ponto de exclamação dentro do triângulo significa que são peças importantes e que devem ser substituídas apenas por peças originais. Dentro do manual de manutenção existe literatura informando o procedimento de como manusear tais peças.

**ATENÇÃO:** PARA PREVENIR O RISCO DE INCÊNDIO OU CHOQUE, NÃO EXPONHA O APARELHO À CHUVA OU UMIDADE.

**AVISO:** AS RECOMENDAÇÕES ABAIXO DEVERÃO SER OBSERVADAS PARA A SUA SEGURANÇA E A DE SEU PRODUTO.

1. Opere o televisor somente com a alimentação especificada.
2. Evite danos no plugue e no cabo de força do televisor.
3. Evite fazer instalação incorreta e nunca coloque o televisor em lugares com pouca ventilação.
4. Não permita o derramamento de líquidos ou de objetos metálicos no interior do aparelho.
5. No caso de ocorrer alguma falha, desligue o televisor da tomada da rede elétrica e solicite o Serviço Autorizado JVC.

As alterações ou modificações realizadas por pessoas não credenciadas pela JVC do Brasil invalidam a garantia do seu televisor.

\* Quando o televisor não for utilizado por um longo período, retire o cabo de força da tomada da rede elétrica, a antena e as pilhas do controle remoto. Tal procedimento poderá evitar danos ao seu equipamento.

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## ESPECIFICAÇÕES TÉCNICAS

## INFORMAÇÕES SOBRE AS CONEXÕES

### LEIA AS INFORMAÇÕES ABAIXO ANTES DE EFETUAR AS CONEXÕES

- Os diagramas das páginas 4, 5 e 6 estão dispostos separadamente, mostrando cada possibilidade de conexão.
- Os cabos A/V são coloridos para facilitar a conexão nas tomadas de áudio e vídeo:

- o plugue amarelo é para a conexão de vídeo
- o plugue vermelho é para a conexão do canal direito (RIGHT) de áudio.
- o plugue branco é para a conexão do canal esquerdo (LEFT) de áudio (mono).

Plugue de entrada A/V



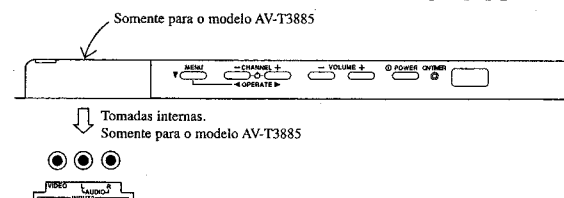
Conectores de RF



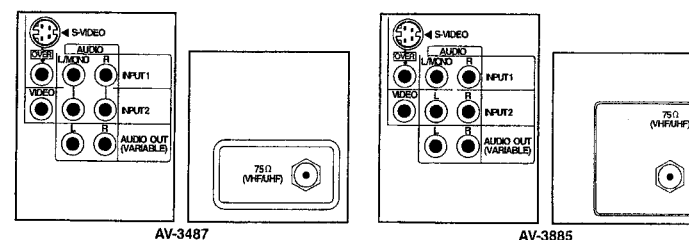
- Para realizar as conexões com sucesso, certifique-se de que cada passo realizado está correto antes de prosseguir para a próxima conexão.
- Certifique-se de desligar o cabo de força da tomada antes de efetuar as conexões.
- Todas as tomadas da parte traseira da sua TV estão devidamente identificadas.

## DIAGRAMAS DO PAINEL FRONTAL E TRASEIRO

### Painel Frontal



### Painel Traseiro

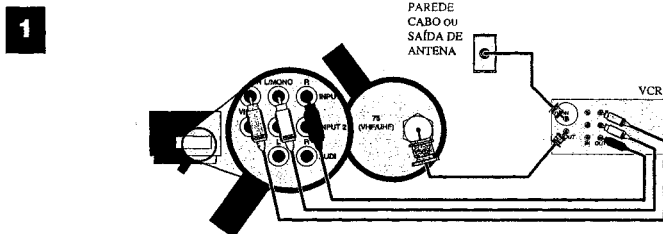


## 4 CONEXÕES

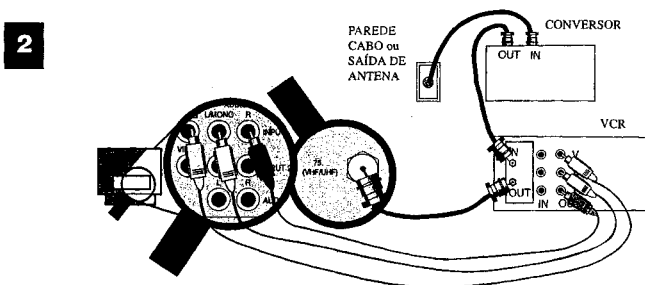
### CONEXÕES DE TV A CABO E VCR

Existem três formas básicas para se ligar a antena ou cabo. Se você possui antena, ou um sistema de TV a cabo não é necessário a utilização de um conversor para sintonizar os canais. Utilize o **Diagrama 1**. Se você possui um sistema de TV a cabo e necessita de um conversor para sintonizar todos os canais ou alguns canais especiais (Paper View), utilize o **Diagrama 2**.

**NOTA:** Para obter o som estéreo a partir do VCR Hi-Fi, você deve conectá-lo à TV com os cabos de áudio e vídeo. Além disso, para obter excelente qualidade de imagem do VCR, utilize os cabos de áudio e vídeo. (Faça isso e você ficará muito satisfeito!)



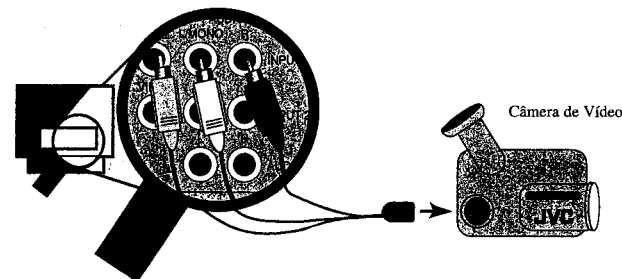
- 1) A saída do fio da antena ou do cabo vai da parede para para a entrada (IN) do VCR (entrada de RF).
  - 2) A saída (OUT) de RF do VCR vai para a entrada de antena da TV (75Ω VHF/UHF).
  - 3) O cabo de vídeo amarelo vai na saída VIDEO OUT do VCR e na entrada VIDEO da TV.
  - 4) O cabo de áudio branco vai na saída AUDIO OUT L (esquerda) do VCR e na entrada INPUT 1 AUDIO L(MONO) da TV
  - 5) O cabo de áudio vermelho vai na saída AUDIO OUT R (direita) do VCR e na entrada INPUT 1 AUDIO R da TV
- Se o seu VCR é mono, ele possui apenas uma tomada de saída de áudio. Conecte-a na tomada INPUT 1 AUDIO L/MONO da TV.



- 1) A saída do cabo vai da parede para a entrada IN do conversor.
  - 2) A saída (OUT) do conversor vai para a entrada (IN) de RF do VCR.
  - 3) A saída (OUT) de RF do VCR vai para a entrada de antena da TV (75Ω VHF/UHF).
  - 4) O cabo de vídeo amarelo vai na saída VIDEO OUT do VCR e na entrada VIDEO da TV.
  - 5) O cabo de áudio branco vai na saída AUDIO OUT L (esquerda) do VCR e na entrada INPUT 1 AUDIO L(MONO) da TV
  - 6) O cabo de áudio vermelho vai na saída AUDIO OUT R (direita) do VCR e na entrada INPUT 1 AUDIO R da TV
- Se o seu VCR é mono ele possui apenas uma tomada de saída de áudio. Conecte-a na tomada INPUT 1 AUDIO L/MONO da TV.

## CONEXÕES 5

### CONEXÃO DE UMA CÂMERA DE VÍDEO



#### ATENÇÃO:

Se você possui o modelo AV-T3885, a câmera poderá ser ligada nas tomadas do painel frontal da TV. As tomadas frontais permitem maior comodidade para ligar e desligar aparelhos que são utilizados esporadicamente. Quando estas tomadas estão sendo utilizadas, as tomadas traseiras INPUT 2 ficam inoperantes.

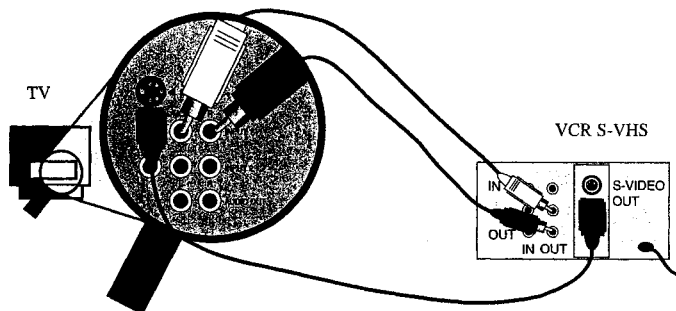
Conecte a Câmera de Vídeo na sua TV.

- 1) O cabo de áudio branco vai da câmera para a entrada INPUT AUDIO L/MONO da TV.
- 2) O cabo de vídeo amarelo vai da câmera para a entrada INPUT VIDEO da TV.
- 3) Se você possui uma câmera estéreo, ligue o cabo de áudio vermelho que sai da câmera na entrada INPUT AUDIO R da TV.

□ Para informações mais detalhadas, consulte o manual de instruções da câmera.

## 6 CONEXÕES

### CONEXÃO DE UM APARELHO COM TOMADA S-VIDEO

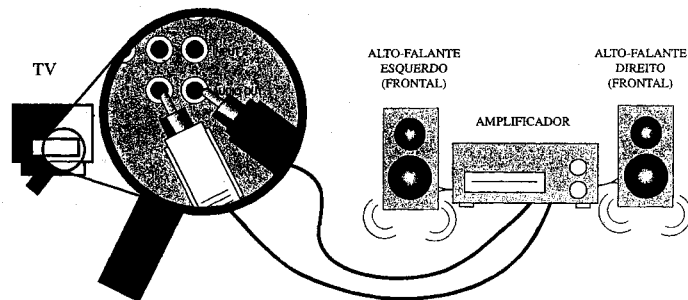


As conexões de áudio são iguais às das descritas na página 5. A conexão acima refere-se a um VCR Super VHS. O cabo especial é fornecido com o VCR.

1) O cabo S-VHS vai da saída S-VIDEO OUT do VCR para a entrada S-VIDEO da TV.

□ Para informações mais detalhadas, consulte o manual de instruções do produto.

### CONEXÃO COM UM AMPLIFICADOR EXTERNO



Desligue os falantes da TV (veja a página 10) e utilize a tecla **VOLUME +/-** para controlar o nível de volume (veja a página 8).

1) O cabo de áudio branco vai na saída AUDIO OUT L (esquerda) da TV e na entrada INPUT do amplificador.

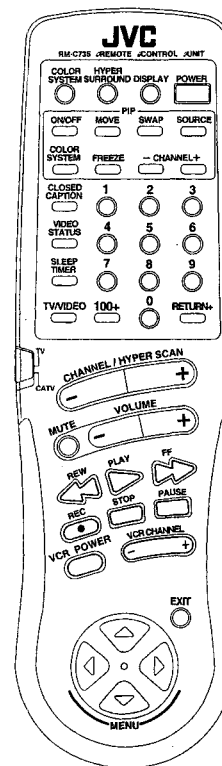
2) O cabo de áudio vermelho vai na saída AUDIO OUT R (direita) da TV e na entrada INPUT do amplificador.

□ Para informações mais detalhadas, consulte o manual de instruções do amplificador.

## PREPARAÇÃO INICIAL

## 7

### CONTROLE REMOTO

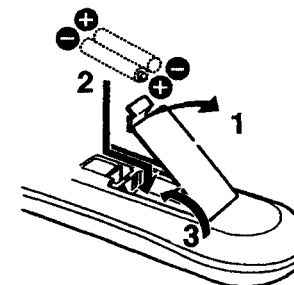


RM-C735

#### Para Substituir e Inserir as pilhas.

Utilize somente pilhas tipo AAA.

- 1** Pressione a trava e levante a tampa do controle remoto.
- 2** Insira duas pilhas tipo AAA respeitando a polaridade "+" e "-" indicada no controle remoto. Para evitar pequenos curto-circuitos no controle, insira primeiro o pólo negativo "-" da pilha.
- 3** Feche a tampa. A tampa do controle estará totalmente fechada quando for ouvido um "click".



#### NOTAS:

- Uma vez colocadas as pilhas no controle remoto e confirmado que ele está funcionando, você poderá programá-lo para poder operar um VCR de outra marca ou ainda um receptor de satélite ou cabo. Veja as páginas 19 e 20.
- Se o tempo para a troca das pilhas for maior que um minuto, poderá ser necessário a reprogramação dos canais a cabo e do código do VCR. Veja a página 19.
- Se o controle remoto não responder corretamente aos comandos, substitua as pilhas. A vida útil de uma pilha é normalmente entre 6 meses e um ano, dependendo da intensidade de uso.
- É recomendado a utilização de pilhas alcalinas.



## 8 PREPARAÇÃO INICIAL

### PARA LIGAR A TV

- ☐ Posicione a chave TV/ CATV para TV. Posicione para CATV somente se a recepção de canais for por TV a Cabo.
- ☐ Pressione POWER (⏻) do painel frontal da TV. O indicador luminoso ON TIMER se acende na cor vermelha.
- ☐ Para desligar a TV, pressione POWER (⏻) no controle remoto. O indicador ON TIMER permanece aceso.
- ☐ Quando a TV não for utilizada por um longo período (férias por exemplo), desligue-a pela tecla Power do painel frontal. O indicador luminoso ON TIMER se apaga.
- ☐ Existem duas maneiras para ligar a TV quando ela é desligada pela tecla Power do controle remoto:
  - 1) Pressione a tecla POWER do controle remoto.
  - 2) Pressione a tecla CHANNEL -/+ do painel frontal da TV.
- ☐ Quando a função ON TIMER está programada, o indicador luminoso ON TIMER se acende na cor verde. Quando a TV é desligada pela tecla POWER do controle remoto e a função TIMER está ativa, o indicador luminoso permanece aceso na cor verde. Veja como programar o Timer na página 15.

#### NOTA:

- Para ligar a TV usando o controle remoto, ela deve estar no modo standby.

### AJUSTE DO VOLUME

- 1 Pressione a tecla VOLUME no painel frontal ou no controle remoto.



- 2 Pressione a tecla MUTE para silenciar o volume.  
Para retornar a audição normal, pressione novamente a tecla MUTE.

### MUDANDO OS CANAIS

- 1 Acesso direto pelo teclado numérico.

Para canais de um dígito, pressione primeiro 0 e depois o número desejado;  
Para canais acima de 100, pressione a tecla +100 e depois os dois dígitos desejados.

- 2 Tecla CHANNEL/HYPER SCAN .

Esta tecla tem dois estágios. É possível sentir um ligeiro "click" entre os estágios.

#### Para mudar os canais normalmente - tecla CHANNEL +/-

Cada vez que a tecla CHANNEL/HYPER SCAN é pressionada levemente (primeiro estágio), o canal seguinte será exibido (-) abaixo ou (+) acima do atual. Mantendo-se esta tecla levemente pressionada (ainda no primeiro estágio) os canais são exibidos seqüencialmente.

#### Para mudar os canais rapidamente - tecla HYPER SCAN +/-

Ao pressionar fortemente a tecla CHANNEL/HYPER SCAN (segundo estágio), os canais serão exibidos rapidamente. Um canal não será selecionado até que a tecla seja solta.

#### NOTAS:

- Apenas os canais programados podem ser selecionados (consulte a página 11).
- A função HYPER SCAN está disponível apenas pelo controle remoto.

## UTILIZANDO O MENU 9



### SÍMBOLOS UTILIZADOS NESTE GUIA:

▲▼ As setas para cima (▲) e para baixo (▼) permitem rolar verticalmente as listas de funções dos menus principais e dos itens dentro de cada menu principal.

◀▶ As setas para a esquerda (◀) e para a direita (▶) permitem atenuar ou realçar o ajuste selecionado, ou ligar e desligar a função selecionada.



O desenho ao lado "pressionando a tecla" significa que você deve pressionar a tecla do controle remoto.

- ☐ A seguir serão apresentadas informações importantes sobre as características da TV.

Os nomes das teclas são sempre escritos com letras maiúsculas (MENU) para não provocarem confusão com as funções do menu que possuem o mesmo nome.

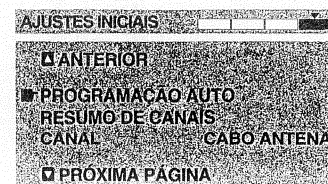
### APRENDENDO AS TELAS DO MENU:

Para utilizar o menu, pressione uma das quatro teclas do MENU para ver na tela da sua TV JVC os ajustes possíveis. O item que aparece na cor amarela está selecionado para o ajuste.

Geralmente os ajustes começam com o menu de imagem. Entretanto, é importante que sejam iniciados conforme apresentado abaixo.

- ☐ Se você utilizar a tecla Menu do painel frontal da TV, as indicações do número do canal e da função TV/VIDEO aparecem antes da tela dos ajustes de imagem.

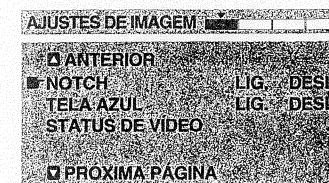
#### AJUSTES INICIAIS



#### AJUSTES DE IMAGEM



#### AJUSTES DE IMAGEM



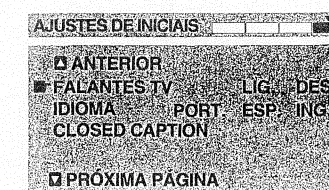
#### AJUSTES DE SOM



#### AJUSTES GERAIS



#### AJUSTES INICIAIS



**NOTA:**  
Quando o sistema PAL-N está selecionado, a função Closed Caption não atua.





## AJUSTES INICIAIS

### ALTO-FALANTES DA TV

Você pode ouvir o som dos alto-falantes da TV, ou se desejar, das caixas acústicas do equipamento estéreo. Neste caso, desligue os alto-falantes da TV.

- ▲▼ Para o item FALANTES TV no menu
- ◀▶ Para ligar ou desligar

FALANTES TV    LIG    DESL



Pressione EXIT quando terminar

**Nota:** Antes de ligar novamente os falantes da TV, certifique-se de que o controle VOLUME está no mínimo.

### IDIOMA

Escolha o idioma desejado (Português, Espanhol ou Inglês).

- ▲▼ Para localizar o item IDIOMA no menu
- ◀▶ Para ativar

IDIOMA    PORT    ESP    ING

↑Português→Espanhol→Inglês



Pressione EXIT quando terminar

### CLOSED CAPTION

Quando incluídos no programa, você pode ver as informações do Closed Caption ou texto.

- ▲▼ Para localizar CLOSED CAPTION no menu
- ◀▶ Para localizar e selecionar "captions" (legendas) ou canal de texto.

CAPTION    CC1    CC2    CC3    CC4  
TEXTO    T1    T2    T3    T4  
TERMINAR

- ▲▼ Para FINALIZAR
- ◀▶ Para salvar os ajustes



Pressione EXIT quando terminar

### Informações sobre o Closed Caption

Se o programa de TV, videocassete ou fita videocassete que você estiver assistindo for identificada na apresentação ou na embalagem pelas palavras Closed Caption, isto significa a presença de legendas codificadas no idioma original. A sua TV JCV tem um decodificador que permite ver essas legendas, o que pode facilitar bastante a compreensão dos diálogos nos programas sem legendas em português ou não dublados.



Para ver essas legendas, aperte repetidamente a tecla CLOSED CAPTION. Observe as indicações abaixo:

**CLOSED CAPTION** - para ver as legendas.  
**TEXTO** - para ver teletexto.  
**DESLIGADO** - para desligar o decodificador de legendas e teletexto.

## AJUSTES INICIAIS



- Notas:**
- As legendas são normalmente encontradas em CC1 e o texto em T1, CC2, CC3, CC4, T2, T3, e T4 estão reservados para projetos futuros.
  - A função COLSED CAPTION não pode ser acionada no sistema PAL-N.
  - Se um boxe largo e preto aparecer na tela da TV, é provável que o modo texto esteja ativo. Pressione a tecla CLOSED CAPTION para desativar.
  - As legendas do CLOSED CAPTION poderão não aparecer corretamente se a recepção do canal sintonizado não estiver boa.
  - As legendas CLOSED CAPTION poderão apresentar problemas nas transmissões de TV a cabo ou nas fontes de vídeo com proteção contra cópias (copy guard).

### PROGRAMAÇÃO AUTOMÁTICA

Durante o processo de sintonização automática, a TV procura e memoriza os canais ativos e com sinal forte de sua região. Os canais com sinal fraco e ruidosos naquele momento não são memorizados.

- ▲▼ Para selecionar PROGRAMAÇÃO AUTO no menu
- ◀▶ Para ATIVAR

PROGRAMANDO...  
05

O processo de programação dura de 3 a 4 minutos, aproximadamente.

FIM DA PROGRAMAÇÃO

- Notas:**
- O redutor de ruído não atua durante a programação automática.
  - Você poderá incluir canais que não foram memorizados e deletar aqueles que você não deseja sintonizar pelas teclas CHANNEL. Veja o item Resumo de Canais, abaixo.

### RESUMO DE CANAIS

Você pode adicionar ou deletar canais com a função Resumo de Canais. Além disso, você pode também censurar canais que julgar inapropriados, a partir do 1 ou todos os 181 canais.

- ▲▼ Para localizar RESUMO DE CANAIS
- ◀▶ Para operar

### ADICIONAR

Você pode sintonizar manualmente os canais fracos e ruidosos que não foram programados durante a programação automática. Por outro lado, se você deseja deletar canais com boa recepção, basta remover o "X", conforme apresentado na tela abaixo.

CAN	PROG	LOCK	CAN	PROG	LOCK
			06	X	
02	X		07		
03	X		08		
04	X		09	X	
05	X		10	X	



Utilize a tecla CHANNEL +/- para escolher o canal desejado

- ▲▼ Para movimentar o cursor pelas colunas
- ◀▶ Para incluir ou deletar



Pressione EXIT quando terminar





## AJUSTES INICIAIS

**Nota:** Os canais identificados com um "X" podem ser sintonizados pela tecla CHANNEL +/-.

**Nota:** Alguns sistemas de cabo quando sintonizam o canal 95, provocam interferências nas frequências de rádio. Se você desejar, delete este canal removendo o "X" do número 95.

### Censurar Canais

▲ ▼ Para selecionar o item RESUMO DE CANAIS no menu

◀ ▶ Para operar

▲ ▼ Para selecionar o ícone do cadeado.

CAN	PROG		CAN	PROG	
01	X		06	X	
02	X		07		🔒
03	X		08		🔒
04	X		09	X	
05	X		10	X	



Pressione o dígito zero (0) para bloquear ou desbloquear o canal.

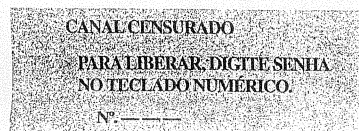
Utilize a tecla CHANNEL +/- para selecionar outro canal que você deseja bloquear



Pressione Exit quando terminar

### MENSAGEM DE CANAL CENSURADO:

A mensagem abaixo aparece quando um canal censurado é sintonizado:



Continuação ...

Digite a senha para liberar o canal. Se a senha estiver errada, a seguinte mensagem aparecerá:



### Notas:

Existem duas seções no item Resumo de Canais.

Para mover a coluna para cima e para baixo (canal por canal), utilize a tecla CHANNEL +/-.

Para mudar item a item (número do canal, adicionar ou censurar), utilize as teclas com as setas para cima e para baixo.

A função Tela Azul não funciona durante a operação do item Resumo de Canais.

### MODO DE RECEPÇÃO

Para selecionar o sistema de recepção entre ANTENA ou CABO.

▲ ▼ Para selecionar o item CANAL no menu

◀ ▶ Para operar



Pressione Exit quando terminar

**Nota:** Veja como ligar o sistema de cabo nas páginas 4 e 5.

## AJUSTES DE IMAGEM



### NOTA:

O ajuste de imagem selecionado fica na cor amarela.

### MATIZ

O ajuste da MATIZ aparece somente nas transmissões de programas NTSC.

▲ ▼ Para selecionar o item MATIZ

▶ Para acentuar o verde

◀ Para acentuar o vermelho

▲ ▼ Para mover para o próximo item

### COR

Ajuste para deixar as cores mais vivas ou para suavizá-las.

▲ ▼ Para selecionar o item COR

▶ Para deixar as cores mais vivas

◀ Para suavizar as cores

▲ ▼ Para mover para o próximo item

### CONTRASTE

Permite variar o ajuste da faixa de contraste para preto e branco.

▲ ▼ Para selecionar o item CONTRASTE

▶ Para aumentar o contraste

◀ Para diminuir o contraste

▲ ▼ Para mover para o próximo item

### BRILHO

Ajusta o grau de escuro e claro.

▲ ▼ Para selecionar o item BRILHO

▶ Para clarear a imagem

◀ Para escurecer a imagem

▲ ▼ Para mover para o próximo item

### NITIDEZ

Ajusta o nível de detalhe da imagem.

▲ ▼ Para selecionar o item NITIDEZ

▶ Para acentuar a imagem

◀ Para suavizar a imagem

▲ ▼ Para mover para o próximo item

### FILTRO NOTCH

Atua na transição de uma imagem em cores vivas com um fundo claro, como noticiários e programas com legenda por exemplo.

▲ ▼ Para selecionar o item NOTCH

◀ ▶ Para ligar ou desligar

### TELA AZUL

Introduz uma tela azul e elimina a tela com chuviscos provenientes de canais vazios ou de canais com sinal fraco.

▲ ▼ Para selecionar o item TELA AZUL

◀ ▶ Para ligar ou desligar

**Nota:** O recurso Tela Azul não funciona durante a Programação Automática de canais e Resumo de Canais.

### STATUS DE VÍDEO

Para memorizar os ajustes de imagem de sua preferência.

▲ ▼ Para selecionar o item STATUS DE VIDEO

◀ ▶ Para operar



◀ ▶ Para selecionar o item MATIZ

▲ ▼ Para mover para o próximo item

Repita estes passos até ajustar todas as opções.

▲ ▼ Para memorizar o ajuste de sua preferência, mover o cursor até "Memorizar Ajustes"

◀ ▶ Para memorizar o ajuste e sair

**OBRIGADO!!**

**Nota:** Para acessar estes ajustes, basta pressionar VIDEO STATUS no controle remoto até a mensagem "Personalizado" aparecer na tela.



## AJUSTES DE SOM

### NOTA:

O item selecionado fica na cor amarela.

### GRAVES

- ▲ ▼ Para selecionar GRAVES
- ▶ Para acentuar os graves
- ◀ Para reduzir os graves
- ▲ ▼ Para mover para o próximo item

### AGUDOS

- ▲ ▼ Para selecionar AGUDOS
- ▶ Para acentuar os agudos
- ◀ Para reduzir os agudos
- ▲ ▼ Para mover para o próximo item

### BALANÇO

- ▲ ▼ Para selecionar BALANÇO
- ▶ Para aumentar o som do alto-falante do lado direito
- ◀ Para aumentar o som do alto-falante do lado esquerdo
- ▲ ▼ Para mover para o próximo item

### Algumas informações a respeito do áudio recebido pela TV

Você pode notar se a transmissão do programa é em estéreo pela indicação da seta ON AIR no menu MTS. Infelizmente, nem sempre isso é verdade, ou seja, algumas companhias de cabo transmitem programas mono com o sinal piloto em estéreo. Isto ocorre porque estas companhias não possuem equipamento mono. Se conectado a um sistema de cabo, a recepção do som fica a mercê da companhia de cabo — se eles transmitem o sinal em mono, você recebe o som mono indiferente se a programação original é estéreo.

Felizmente, a maioria das transmissões em estéreo pelas redes de televisão são pelo ar (via antena).

Se o seu TV está ligado a um sistema de cabo e você deseja mudar para ANTENA (página 12), tal mudança tornará possível receber as transmissões em estéreo.

### MTS (Multi-Channel Television Sound)

A tecnologia MTS permite escolher entre os sistemas estéreo, mono ou SAP (segundo programa de áudio).

- ▲ ▼ Para selecionar MTS



- ◀ ▶ Para selecionar o modo

(A indicação no ar com a seta indica que o sinal está sendo transmitido em estéreo ou SAP.)

**Nota:** Para obter a melhor reprodução do som, selecione a opção estéreo.

**Nota:** O SAP permitirá a você ouvir o som do idioma original, caso esteja disponível.

**Nota:** Selecione a opção mono para reduzir o excesso de ruído no som de um programa ou de um canal.

### AJUSTE DO RELÓGIO

O relógio deve estar funcionando para poder programar o timer.

- ▲ ▼ Para selecionar o item RELÓGIO/TIMER no menu
- ◀ ▶ Para operar



- ◀ ▶ Para ajustar a hora (AM/PM)
- ▼ Para mover para os minutos

- ◀ ▶ Para ajustar os minutos
- ▼ Para finalizar o ajuste
- ◀ ▶ Para iniciar o funcionamento do relógio

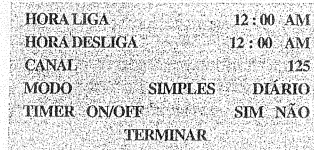
**OBRIGADO!!**

**Nota:** Se a TV é desligada da tomada ou se faltar energia elétrica, o relógio deverá ser novamente ajustado para que as funções do timer possam funcionar.

### TIMER ON/OFF

Com esta função é possível ligar e desligar a TV num horário pré-determinado. Utilize-a para despertar, para ligar a TV e assistir um determinado programa ou para simular a presença de pessoas na residência quando você estiver fora.

- ▲ ▼ Para selecionar o item TIMER ON/OFF no menu
- ◀ ▶ Para operar



- ◀ ▶ Para ajustar a hora (AM/PM)
- ▼ Para mover para os minutos
- ◀ ▶ Para ajustar os minutos

## ITENS GERAIS



- ▼ Para selecionar HORA LIGA e HORA DESLIGA
- ▼ Para mover para o item CANAL
- ◀ ▶ Para selecionar o canal
- ▼ Para selecionar o MODO
- ◀ ▶ Para selecionar SIMPLES ou DIÁRIO
- ▼ Para selecionar SIM ou NÃO
- ◀ ▶ Selecione SIM para ativar
- Selecione NÃO para desativar
- ▼ Para finalizar
- ◀ ▶ Para memorizar e sair do ajuste

**OBRIGADO!!**

**Nota:** A função Timer só atua se o relógio estiver funcionando. Se faltar energia, a programação do timer poderá ser cancelada.

**Nota:** O timer não funciona para os canais censurados.

### PARA PROGRAMAR A SENHA

Esta senha permite a você bloquear e desbloquear canais censurados. Digite três números e não os deixe à vista das pessoas de sua casa.

- ▲ ▼ Para selecionar o item PROGRAMAR SENHA no menu
- ◀ ▶ Para operar

O ícone do cadeado aparece



Pressione o dígito zero (0)



- ▲ ▼ Para localizar o primeiro dígito da senha.
- ◀ ▶ Para escolher o número
- ▲ ▼ Para mover para o próximo dígito

Repita esta operação até ter digitado os três números da senha

- ▲ ▼ Para finalizar
- ◀ ▶ Para memorizar e sair do ajuste

**OBRIGADO!!**

**Notas:** Se você esquecer o código, repita a operação acima para programar outro. Se a energia elétrica for interrompida, a senha deverá ser reprogramada.





## FUNÇÕES DAS TECLAS

### NOTAS:

Se o relógio, Timer ON/OFF e o Sleep Timer não estiverem ajustados, ao pressionar a tecla Display não aparecerá na tela as indicações destas funções

### CLOSED CAPTION:

Quando o sistema de cores está ajustado para PAL-N, a função CLOSED CAPTION não atua.

### TECLA DISPLAY

Permite visualizar o canal sintonizado, hora e programação dos timers.



Tecla DISPLAY

07.	12:20 AM
AGORA	DESL.
SLEEP TIMER	DIÁRIO
TIMER ON/OFF	12:00 PM
LIGAR	10:00 PM
DESLIGAR	

- ☐ Canal ou entrada AV (Canal 07)
- ☐ Horário (12:20 PM)
- ☐ Tempo remanescente do Sleep Timer.
- ☐ Timer ON/OFF diário (ligar às 12:00 PM e desligar às 10:00 PM)
- ☐ Cada vez que a tecla DISPLAY é pressionada, as indicações mudam na seguinte ordem:

→ Display → Hora → Canal → Desl. →

### TECLA CLOSED CAPTION

Para ver as legendas ou texto é necessário que eles estejam incluídos no programa.



Tecla CLOSED CAPTION

→ Closed Caption → Texto → Desl. →

Maiores informações na página 10.

### TECLA VIDEO STATUS

Permite selecionar os ajustes conforme relacionado abaixo.

“NORMAL” ajusta a imagem conforme padrão de fábrica.

“PERSONALIZADO” ajustes memorizados por você. (Página 13.)

“THEATER” para assistir programas em um ambiente escuro.



→ NORMAL → PERSON. → THEATER →

### TECLA SLEEP TIMER

A sua TV pode ser programada para se desligar num tempo determinado. A programação pode ser feita em intervalos de 15 minutos até 180 minutos.



Tecla SLEEP TIMER

0 15 30 45 60 75 90 105 120 135 150 165 180

**MENSAGEM ANTES DO DESLIGAMENTO:**  
20 segundos antes do desligamento a mensagem abaixo aparece na tela: Você tem 20 segundos para prorrogar este tempo, pressionando a tecla SLEEP TIMER e retardar o desligamento por mais 15 minutos.



### TECLA COLOR SYSTEM

Seleciona automaticamente o sistema de cores. Porém, se as cores não aparecerem, selecione manualmente.



Tecla COLOR SYSTEM

→ AUTO → PAL-M → PAL-N → NTSC →

## FUNÇÕES DAS TECLAS



### TECLA HYPER SURROUND

Cria uma profundidade no som, proporcionando um efeito tridimensional através dos alto-falantes frontais.

### TECLA TV / VIDEO

Seleciona o modo de entrada.



TV/VIDEO

→ TV → VIDEO-1 → VIDEO-2 →

### TECLA 100 +

Utilize-a para acessar os canais acima de 99.

Para selecionar o canal 124:



100+



2 (dois)



4 (quatro)

### TECLAS DO VCR

Este controle remoto poderá controlar as teclas do seu VCR JVC. Para os VCRs de outros fabricantes é necessário habilitar o VCR através de um código. Veja a página 19.

### TECLAS MENU

As teclas do MENU permitem acessar todas as funções disponíveis do seu TV. Veja instruções mais detalhadas na página 9.

### TECLA MUTE

Permite silenciar completamente o volume da TV. Pressione-a novamente para retomar o volume normal.

### TECLA RETURN+

Existem duas possibilidades para a função Return:

**Return+** — Permite memorizar um canal que você assiste com maior frequência. Para assisti-lo, basta pressionar a tecla RETURN+.

### Importante:

Este procedimento só funciona quando os canais são sintonizados pela tecla CHANNEL +/-.

Escolha um canal utilizando as teclas CHANNEL +/-



Mantenha pressionada a tecla RETURN+ por três segundos

**CANAL DE RETORNO PROGRAMADO!**



Não importa quantos canais você mudou pela tecla CHANNEL, pressionando a tecla RETURN+ o canal memorizado é sintonizado.

**Nota:** Para cancelar a função canal de retorno, mantenha a tecla RETURN+ pressionada por mais 3 segundos. Observe a indicação “Canal de Retorno Cancelado”.

**Return** — Para retornar ao último canal assistido.

### Importante:

Este procedimento funciona tanto pela tecla CHANNEL quanto para o teclado numérico.



Pressione RETURN+

**Nota:** O canal de retorno não funciona para a função PIP.

### TECLADO NUMÉRICO

Utilize-o para mudar os canais. Para sintonizar o canal 7 por exemplo:



0 (zero)



7 (sete)

### NOTA:

A função Return+ só funciona quando os canais são mudados pelas teclas CHANNEL +/-.

Quando o teclado numérico é utilizado para sintonizar um canal, esta função é cancelada.



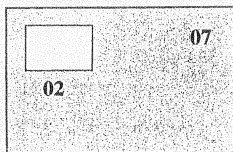
## TECLAS FUNÇÕES PIP

### PIP (Picture in Picture)

Possibilita ver dois programas diferentes ao mesmo tempo, seja dois programas de TV ou um de TV e outro de vídeo.



Pressione a tecla PIP ON/OFF para ativar a função



Pressione a tecla PIP ON/OFF para desativar a função PIP.

**Nota:** A imagem do canal PIP e do canal principal poderão aparecer momentaneamente após o pressionamento da tecla PIP ON/OFF. Para deixar os canais PIP e principal aparentes, pressione 3 vezes a tecla DISPLAY.

**Nota:** O tamanho da tela PIP é 1/9 menor que a tela principal.

### TECLAS CHANNEL +/- do PIP

Para mudar os canais da tela PIP.



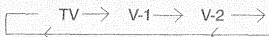
Pressione PIP CHANNEL +/-

### TECLA SOURCE

Para selecionar a fonte da imagem PIP.



Pressione a tecla SOURCE



Para ver as imagens das saídas V1 e V2 é necessário que sejam conectados equipamentos em suas respectivas tomadas. Veja as páginas 4 e 5.

• Você pode conectar um videocassete, videolaser ou câmera de vídeo às entradas INPUT 1 e INPUT 2.

### TECLA FREEZE

Você pode congelar a imagem da tela grande e mandá-la para dentro da tela pequena ou congelar a imagem PIP.



FREEZE

**Nota:** Quando o PIP está desligado, pressionando a tecla FREEZE a imagem da tela grande é congelada e instantaneamente capturada pela tela PIP (pequena).

**Nota:** Quando a tela PIP está selecionada e a tecla FREEZE é pressionada, a imagem fica paralisada.

### TECLA SWAP

Permite trocar a imagem da tela pequena pela imagem da tela grande.



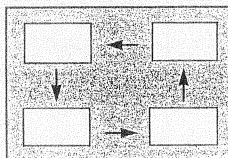
SWAP

### TECLA MOVE

Você pode movimentar a tela PIP conforme indicado na ilustração abaixo.



Pressione a tecla Move



**Nota:** Cada vez que você pressiona a tecla Move, a tela PIP muda de posição dentro da tela principal.

### TECLA COLOR SYSTEM (PIP)

Seleciona automaticamente o sistema de cores. Porém, se as cores não aparecerem, selecione manualmente.



Tecla COLOR SYSTEM



## PROGRAMANDO O CONTROLE REMOTO



### AJUSTANDO OS CANAIS (CATV) E OS CÓDIGOS DE VCR

O controle remoto foi projetado para operar outras marcas de VCR's, sistema de TV a Cabo e receptores de satélite, conforme indicado na tabela abaixo. Se você seguiu as instruções descritas abaixo e conseguiu habilitar o seu sistema, desconsidere o texto da coluna direita.

#### PARA AJUSTAR CATV/RECEPTOR DE SATÉLITE

- 1) Ajuste a chave **CATV/TV** para **CATV**.
  - 2) Obtenha o código do seu produto conforme indicado na tabela abaixo.
  - 3) Aponte o controle para o aparelho desejado e pressione simultaneamente as teclas **TV POWER** e **RETURN+**, e depois solte-as.
  - 4) Utilize o teclado numérico para digitar o código de três dígitos. Em seguida, pressione a tecla **RETURN+**. (Se você não pressionar a tecla **RETURN+** o ajuste não será realizado.)
- A tecla **POWER**, o teclado numérico e as teclas **CHANNEL +/-** podem controlar o seu aparelho.

Se você realizou as instruções descritas no lado esquerdo e se todas as tentativas de códigos foram realizadas e o aparelho não respondeu aos comandos do controle remoto, você deverá tentar habilitar o controle conforme descrito abaixo.

#### FUNÇÃO BUSCA DE CÓDIGOS

- 1) Ajuste a chave **CATV/TV** para **CATV**.
- 2) Aponte o controle para o aparelho desejado e pressione ao mesmo tempo as teclas **TV POWER** e **RETURN+**, e depois solte-as.
- 3) Pressione a tecla **TV/POWER** e observe se o aparelho respondeu aos comandos do controle remoto.
- 4) Quando ele responder, pressione a tecla **RETURN+**. Se não obtiver resposta na primeira tentativa, repita o item 3 até obter resultado positivo. (Se você não pressionar a tecla **RETURN+**, o ajuste não será realizado.)

#### NOTA:

- Conforme o tipo de VCR, pode haver casos em que alguma ou nenhuma função possa ser operada com o controle remoto.

### CÓDIGOS PARA TV A CABO E SATÉLITE

CONVERSOR	CÓDIGOS	CONVERSOR	CÓDIGOS	CONVERSOR	CÓDIGOS
ABC	001 003 007 008 011 013 014	Oak	007 019	Tusa	015
Allegro	153 315	Panasonic	000 021 107	TV86	063
Antronix	022 207	Panther	637	Unika	022 153 207
Archer	022 153 207	Paragon	000	United Artists	007
Belcor	056	Philips	025 027 031 153	United Cable	003
Cable Star	056	Pioneer	023 144 533	Universal	022 056 153 191 207
Cabletenna	022	Popular Mechanics	400	Videoway	250
Cableview	022	Pulsar	000	Viewstar	027 063 258
Century	153	Radio Shack	015 315	Zenith	000 054
Citizen	153 315	RCA	021	Zentek	400
Colour Voice	025 031	Realistic	207		
Comtronics	040	Recoton	400		
Contac	019	Regal	020 259		
Eastern	002	Regency	002		
Everquest	015 040	Rembrandt	011		
Focus	400	Runco	000		
Garrard	153	Samsung	040 144		
GC Electronics	056 207	Scientific Atlanta	006 008 017 477		
Gemini	015	Signal	015 040		
General Instrument	011 476	Signature	011		
Gold Star	040 144	SL Marx	040		
Hamlin	009 020 034 259	Sprucer	021		
Hitachi	011	Starcom	003 015		
Hytex	007	Stargate	015 040		
Jasco	153 315	Starguest	015		
Jerrold	003 011 012 014 015 476	Sylvania	001		
Magnavox	027	Tandy	258		
Memorex	000	Televue	040		
Movie Time	063 156	Texscan	001		
Novaplex	618	TFC	310		
NSC	063 156	Tocom	012 013		
		Toshiba	000		

#### PARA AJUSTAR O CÓDIGO DO VCR:

- 1) Ajuste a chave **CATV/TV** para **TV**.
- 2) Aponte o controle para o **VCR** e pressione simultaneamente as teclas **TV POWER** e **RETURN+**, e depois solte-as.
- 3) Com o teclado numérico digite o código de três dígitos. Em seguida, pressione a tecla **RETURN+**. Se o VCR não respondeu aos comandos do controle remoto:

- 1) Aponte o controle para o VCR e pressione simultaneamente as teclas **TV POWER** e **RETURN+**, e após solte-as.
- 2) Aponte o controle para o VCR e pressione repetidamente a tecla **VCR POWER** até que o VCR responda.
- 3) Quando o VCR responder aos comandos, pressione a tecla **RETURN+**.



## PROGRAMANDO O CONTROLE REMOTO

### CÓDIGOS DE VCRs

VCRs	CÓDIGOS	VCRs	CÓDIGOS	VCRs	CÓDIGOS
Admiral	048	Lloyd	000	Salora	075
Adventura	000	Lloyd's	208	Samsung	045 051 053 240
Aiko	278	Logik	072	Sanky	039 048
Aiwa	000	LXI	037	Sansui	041 067 271
Akai	041 049 053 061 106	Magnavox	035 039 081 149	Sanyo	046 047 104 240
American High	035	Magnin	240	Scott	043 045 121 184 211
Asha	240	Marantz	035 081	Sears	212 035 037 042 046
Audiovox	037	Marta	037		047 054
Beaumarck	240	Matsushita	035 162		066 104 105 067 008
Bell & Howell	104	MEI	035	Sharp	048 062
Broksonic	121 184 211 295 361	Memorex	000 035 037 039 046 047 048	Shintom	072
Calix	037		104 240	Shogun	051 240
Canon	035	MGA	043 061	Singer	072
Capehart	020	MGN Technology	240	Sony	032 033 034 035 253
Carver	081	Minolta	042 105	STS	042
CCE	072 278	Mitsubishi	043 061 067 075 173	Sunpak	253
Citizen	037 278	Motorola	035 048	Sylvania	000 035 043 081
Coit	072	MTC	000 240	Symphonic	000
Craig	037 047 072 240 271	Multitech	000 072	Tatung	041
Curtis Mathes	035 041 060	NAD	058	Teac	000 041
Cybermax	051 240	NEC	038 040 041 067 104	Technics	035 162
Daewoo	020 045 278	Nikko	037	Teknika	000 035 037
Daytron	020	Nikon	034 253	TMK	036 208 240
Dynatech	000	Noblex	240	Toshiba	043 045 066 212 366
Electrohome	037	Olympus	035	Totevision	037 240
Electroponic	037	Optimus	037 048 058 104 162 432	Unitech	240
Emerax	032	Optonica	062	Vector	045
Emerson	000 002 036 037 043 061 068	Orion	295 479	Vector Research	038 040
	088 121 184 208 209 211 212	Panasonic	035 077 162 225	Video Concepts	040 045 061
	278 294 295 361 479	Penney	035 037 038 040 042 054 240	Videosonic	240
Fisher	047 054 066 104	Pentax	042 065 105	Wards	000 035 042 047 048
Fuji	033 035	Philco	035		060 062 072 081 149
Funai	000	Phillips	035 062 081		212 240
Garrard	000	Pilot	037	XR-1000	000 035 072
GE	035 060 065 202	Pioneer	058 067	Yamaha	038
Go Video	232	Portland	020	Zenith	033 034 039
GoldStar	037 038	Proflitronic	240		
Gradiente	000	Protec	072		
Grundig	195	Pulsar	039 051		
Harley Davidson	000	Quarter	046		
Harman/Kardon	038 075	Quartz	046		
Harwood	068 072	Quasar	035 077 162		
Headquarter	046	Radio Shack	000 037		
Hi-Q	047	Radix	037		
Hitachi	041 042 065 105 166	Randex	037		
Jensen	041	RCA	042 060 065 077 105 106 149		
JVC	067 008 041		202		
KEC	037 278	Realistic	000 035 037 046 047 048 062		
Kenwood	038 041 067		066 104		
KLH	072	Ricoh	034 253		
Kodak	035 037	Runco	039		



## CORREÇÃO DE PROBLEMAS

PROBLEMAS	VERIFIQUE
A TV não liga	<ul style="list-style-type: none"> <li>• Verifique se a tomada de força está desligada.</li> <li>• Ligue-o em outra tomada, ou se for a uma régua de força, verifique se o fusível está queimado.</li> </ul>
Sem imagem ou som	<ul style="list-style-type: none"> <li>• Verifique se a antena está bem conectada.</li> <li>• Verifique se a imagem recebida é da TV ou do VCR. Veja a posição da tecla TV/VIDEO (página 17).</li> <li>• Verifique se o sistema de recepção está ajustado corretamente (página 12).</li> <li>• O canal de TV pode estar com problema. Tente sintonizar outro canal</li> </ul>
O controle remoto não funciona	<ul style="list-style-type: none"> <li>• Verifique se as pilhas estão boas e se foram corretamente instaladas.</li> <li>• Certifique-se de que não haja objetos obstruindo o caminho do sinal do controle remoto para o TV.</li> <li>• Verifique a posição da chave TV/CATV — Ajuste para TV quando for assistir televisão.</li> </ul>
Você não pode sintonizar determinado canal	<ul style="list-style-type: none"> <li>• Talvez você esteja muito longe do televisor. A distância máxima recomendada é de 7 metros.</li> <li>• Certifique-se de que os canais foram programados. Veja Resumo de Canais na página 11.</li> <li>• Talvez o canal esteja censurado, selecione o canal através do teclado numérico.</li> </ul>
A TV desligou	<ul style="list-style-type: none"> <li>• Talvez o Timer esteja programado, Ligue a TV e veja a página 15.</li> <li>• Faltou energia elétrica ou alguém desligou a tomada. Ajuste o relógio. Veja a 15.</li> <li>• Talvez o Sleep Timer esteja acionado. Veja a página 16.</li> </ul>
Relógio não funciona	<ul style="list-style-type: none"> <li>• Acabou a energia e o relógio não foi reajustado. Reajuste o relógio. Veja a página 15.</li> </ul>
O Timer ON fica piscando	<ul style="list-style-type: none"> <li>• O TV está com problema. Desligue-o da tomada de força e solicite auxílio do Serviço Autorizado.</li> </ul>
IMAGEM	VERIFIQUE
Cores pobres	<ul style="list-style-type: none"> <li>• As cores foram ajustadas incorretamente. Veja a página 13.</li> <li>• Os ajustes de imagem podem estar incorretos. Veja a página 16.</li> </ul>
Aparece linhas ou riscos na tela	<ul style="list-style-type: none"> <li>• Verifique se não há interferência de outros produtos ligados à mesma tomada, assim como computadores, outra TV ou VCR. Ligue os demais aparelhos em outra tomada.</li> </ul>
Manchas na imagem	<ul style="list-style-type: none"> <li>• Aparelhos como aspirador, liquidificador e lâmpadas de néon causam este tipo de interferência. Remova a antena de posição para longe dos equipamentos que causam tal interferência ou substitua o fio da antena por um cabo coaxial, que é menos propenso a interferências.</li> </ul>
Sombras na imagem	<ul style="list-style-type: none"> <li>• Prédios e aeronaves podem refletir um segundo sinal original atrasado com relação ao original. Ajuste o posicionamento da antena.</li> </ul>
Imagem com neve/ruído	<ul style="list-style-type: none"> <li>• A antena pode estar com defeito, desconectada ou mal direcionada. Verifique as conexões de antena na página 4. Se estiver com problemas você deverá refazê-las.</li> </ul>
Boxe preto cobre a tela	<ul style="list-style-type: none"> <li>• Pressione repetidamente a tecla CLOSED CAPTION para desligar a função.</li> </ul>
SOM	VERIFIQUE
SAP ou estéreo não podem ser ouvidos	<ul style="list-style-type: none"> <li>• Verifique se o MTS está corretamente ajustado. Veja maiores detalhes na página 14, Modo MTS.</li> </ul>
Sem som nos alto-falantes	<ul style="list-style-type: none"> <li>• Os falantes do TV podem estar desligados no menu. Veja a página 10.</li> </ul>
NÃO É PROBLEMA	NÃO SE PREOCUPE, ISTO É NORMAL
Elettricidade estática	<ul style="list-style-type: none"> <li>• É normal você sentir a eletricidade estática ao tocar na tela do televisor.</li> </ul>
Estálos ocasionais no som	<ul style="list-style-type: none"> <li>• É normal o TV emitir estes estalos quando é ligado e desligado. A não ser quando o som e imagem não estão normais, isto é normal.</li> </ul>

## ESPECIFICAÇÕES TÉCNICAS

Sistema de recepção .....	NTSC, PAL-N, PAL-M
Faixa de recepção .....	VHF 2 a 13, UHF 14 a 69 Sub Mid, Mid, Super, Hyper e Ultra (181 channel frequency synthesizer system)
Consumo .....	Max. 145W méd. 105W
Cinescópio .....	96.5cm medidos diagonalmente (AV-T3885) 86.4cm medidos diagonalmente (AV-T3487)
Saída de áudio .....	5W x 2
Alto-falantes .....	8 cm x 12 cm oval x2 (AV-T3885) 5 cm x 12 cm oval x 2 (AV-T3487)
Terminal de antena .....	75 ohms (VHF/UHF) (conector tipo F)
Alimentação .....	AC120V-240V (calculado) AC90V-AC260V(faixa de operação)
Terminais de entrada .....	Video: 1V(p-p), 75 ohms Áudio:500mV(rms) (-4dBs) alta impedância
Saída de áudio variávelP .....	Maior que 0 mV(rms) a 1550 mV(rms) (+6dBs), baixa impedância (400Hz quando modulado a 100%)
Dimensões (L x A x P) .....	86 cm x 76.5 cm x 60.3 cm (AV-T3885) 76.8 cm x 66.4 cm x 54.8 cm (AV-T3487)
Peso .....	69.2 kg (AV-T3885) 54.0 kg (AV-T3487)
Acssórios .....	Controle remoto x1 pilhas tipo AAA x 2

Projeto e especificações técnicas sujeitos a alterações sem aviso prévio.

# SPECIFIC SERVICE INSTRUCTIONS

## REPLACEMENT OF CHIP COMPONENT

### ■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

### ■ SOLDERING IRON

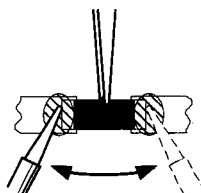
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

### ■ REPLACEMENT STEPS

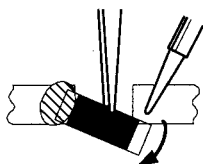
#### 1. How to remove Chip parts

##### ◆ Resistors, capacitors, etc

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with tweezers and remove the chip part.

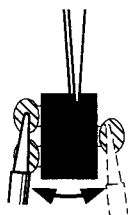


##### ◆ Transistors, diodes, variable resistors, etc

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

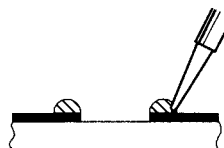


*Note : After removing the part, remove remaining solder from the pattern.*

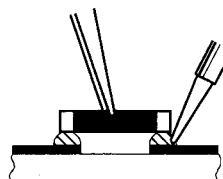
#### 2. How to install Chip parts

##### ◆ Resistors, capacitors, etc

- (1) Apply solder to the pattern as indicated in the figure.

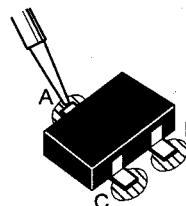


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

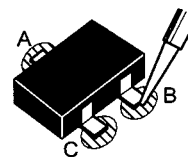


##### ◆ Transistors, diodes, variable resistors, etc

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead A as indicated in the figure.



- (4) Then solder leads B and C.



## DISASSEMBLY PROCEDURE

### REMOVING THE REAR COVER

1. Unplug the power plug.
2. As shown in Fig.2, remove the **11** screws marked (A) .
3. Remove the rear cover toward you.

When reinstalling the rear cover, carefully push it inward after inserting the chassis into the rear cover groove.

### REMOVING THE CHASSIS

●After removing the rear cover.

1. Slightly raise the both sides of the chassis by hand and remove the **2** claws under the both sides of the chassis from the front cabinet.
2. Withdraw the chassis backward along the rail in the arrow direction marked (B) as shown in the Fig.2.  
(If necessary, take off the wire clamp, connectors etc.)

When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT SOCKET PWB and the MAIN PWB.

### REMOVING THE TERMINAL BOARD

●After removing the rear cover.

1. As shown in Fig.2, remove the **2** screws marked (C) .
2. As shown in Fig.1, after removing the claw marked (D) in the direction of arrow mark.
3. When you pull out the TERMINAL BOARD in the direction of arrow marked (E) as shown in Fig.1, it can be removed.
4. Thus the connector should be securely inserted when the TERMINAL BOARD is installed again.

### REMOVING THE FRONT CONTROL PW BOARD

●After removing the rear cover and chassis.

1. As shown in Fig.2, remove the screw marked (F) .
2. Remove the PWB protector.
3. Then remove the FRONT CONTROL PWB.

### CHECKING THE MAIN PW BOARD

To check the back side of the MAIN PW Board.

- 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
- 2) Erect the chassis vertically so that you can easily check the back side of the MAIN PW Board.

#### [CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PWB.
- Before turning on power, make sure that the wire connector, CRT earth wire and other connectors properly connected.
- When repair service, connect degaussing coil to **DEG** connector on MAIN PW board.

### WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together.  
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

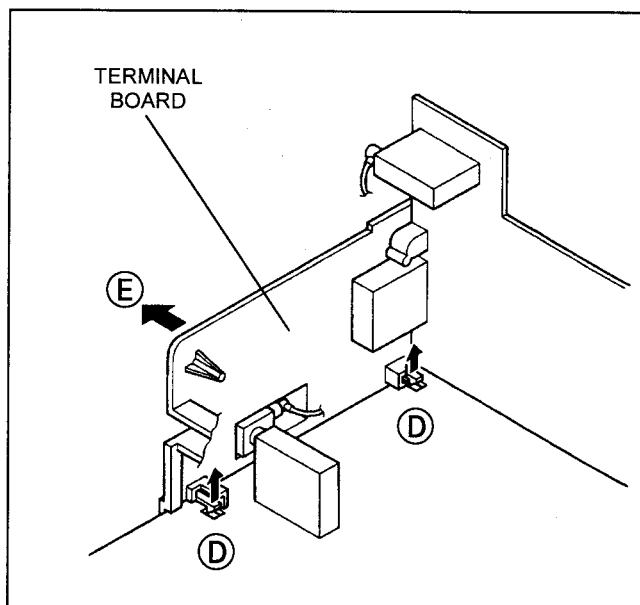


Fig.1



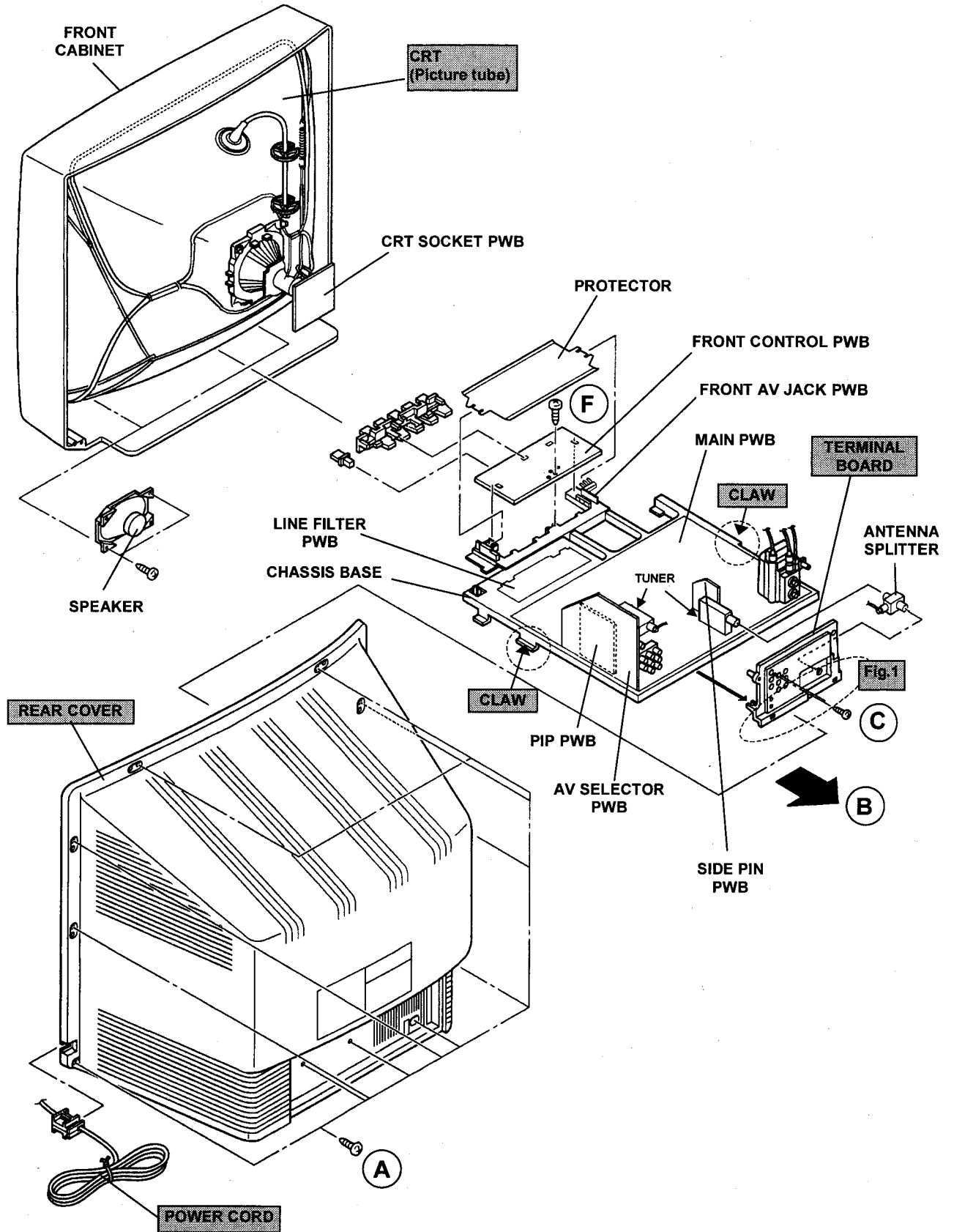


Fig. 2

REMOVING THE CRT

- \* Replacement of the CRT should be performed by 2 or more persons.
  - After removing the cover, chassis etc.,
1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.3).
  2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.4.
  3. Remove 4 nuts marked by arrows with a box type screw driver as shown in Fig.4.
- Since the cabinet will drop when nuts have been removed, be sure to support the cabinet with hands.
  - 4. After 4 nuts have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.5.
  - The CRT should be assembled according to the opposite sequence of its dismantling steps.
- \* The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

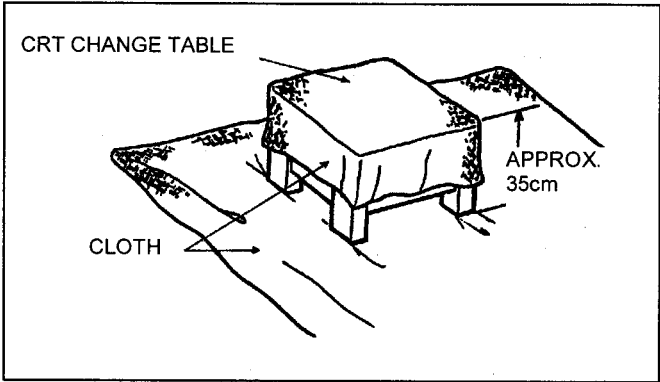


Fig. 3

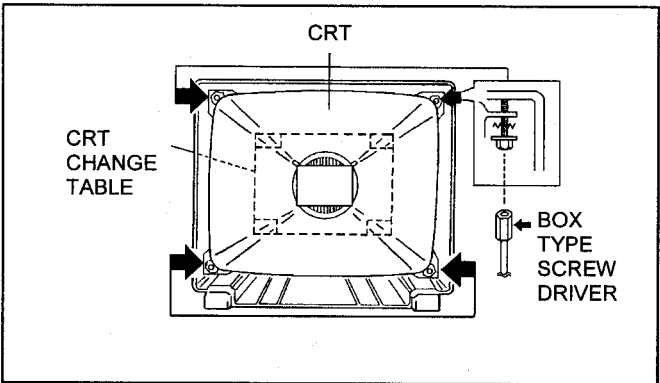


Fig. 4

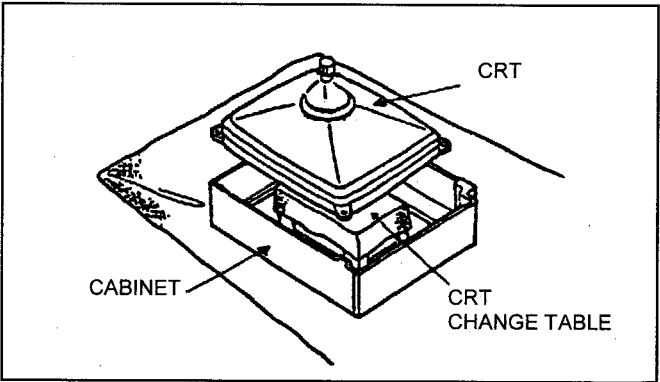


Fig. 5

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

- Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismantling them, be sure to coat silicon grease for electrical insulation as shown in Fig.6. Wipe around the anode button with clean and dry cloth. (Fig.6) Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not stick to the anode button. (Fig.7)

★ Silicon grease product No. KS - 650N

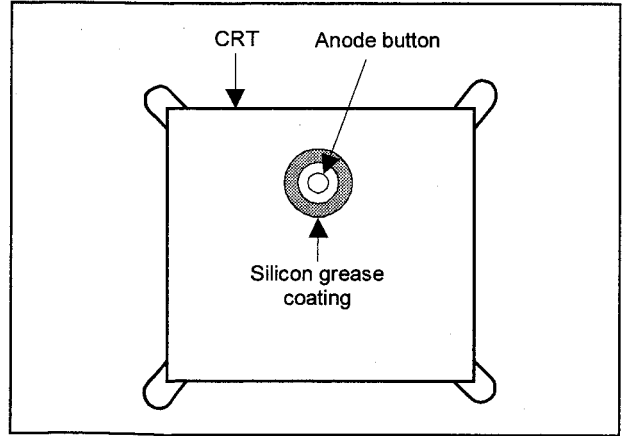


Fig. 6

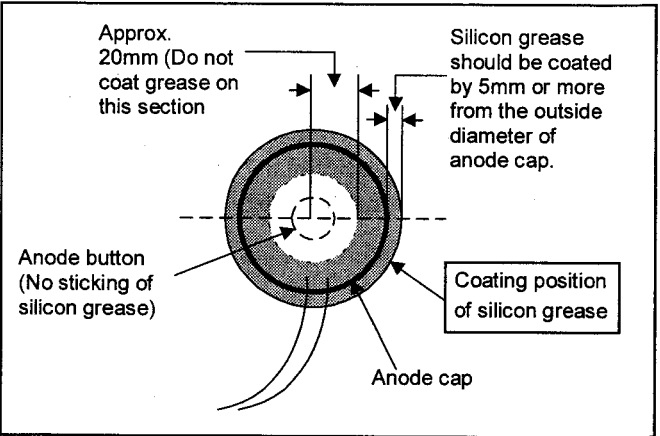


Fig. 7

# REPLACEMENT OF MEMORY IC

## 1. Memory IC

This model use the memory IC.

The memory IC stores data for proper operation of video and deflection circuits.

When replacing, be sure to use an IC containing this (initial value) data.

## 2. Memory IC replacement procedure

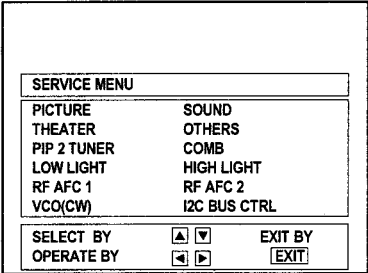
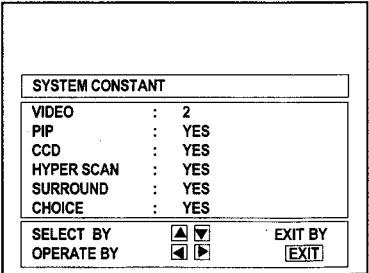
PROCEDURE	SCREEN DISPLAY
<b>(1) Power off</b> Switch off the power and disconnect the power cord from the outlet.	
<b>(2) Replace the memory IC.</b> Be sure to use memory ICs written with the initial data values.	
<b>(3) Power on</b> Connect the power cord to the outlet and switch on the power.	
<b>(4) System constant check and setting</b> <b>※It must not adjust without signal.</b> <ol style="list-style-type: none"> <li>1) Simultaneously press the DISPLAY key and VIDEO STATUS key of the remote control unit.</li> <li>2) The SERVICE MENU screen of Fig.1 will be displayed.</li> <li>3) While the SERVICE MENU on displaying, again simultaneously press the DISPLAY and VIDEO STATUS keys to display the Fig.2 SYSTEM CONSTANT screen.</li> <li>4) Refer to the SYSTEM CONSTANT table and check the setting items. Where these differ, select the setting item with the MENU UP / DOWN key and set the correction with the MENU LEFT / RIGHT keys. (The letters of the selected item are displayed in yellow.)</li> <li>5) After adjusting, release the MENU LEFT / RIGHT key to store the setting value.</li> <li>6) Press the EXIT key twice to return the normal screen.</li> </ol>	
<b>(5) Receive channel setting</b> Refer to the <b>OPERATING INSTRUCTIONS (USER' S GUIDE)</b> and set the receive channels (Channels Preset) as described.	
<b>(6) User settings</b> Check the user setting items according to Table 2. Where these do not agree, refer to the <b>OPERATING INSTRUCTIONS</b> and set the items as described.	
<b>(7) SERVICE MENU setting</b> Verify the setting items of the SERVICE MENU, and reset where necessary(Fig.1). For setting, refer to the SERVICE ADJUSTMENT.	

Fig.1

Fig.2

TABLE 1 (Settings of SYSTEM CONSTANT setting)

Setting item	Setting constant	Setting value
VIDEO	1 / 2	2
PIP 2 TUNER	YES / NO	YES
CCD	YES / NO	YES
HYPER SCAN	YES / NO	YES
SURROUND	YES / NO	YES
CHOISE	YES / NO	YES

TABLE 2 (User setting)

Setting item	Setting value	Setting item	Setting value
<b>1. Use remote controller keys</b> POWER CHANNEL VOLUME TV/VIDEO CLOSED CAPTION HYPER SURROUND	ON CH-02 Proper sound volume TV OFF OFF	DISPLAY VIDEO STATUS SLEEP TIMER PIP SOURCE PIP POSITION	OFF STANDARD 00 CN-04 LOW-LEFT
<b>2. Settings from MENU</b> TINT COLOR PICTURE BRIGHT DETAIL  NOTCH NOISE MUTE SET VIDEO STATUS  BASS TREBLE BALANCE  SET CLOCK ON/OFF TIMER SET LOCK CODE	CENTER (only NTSC) CENTER CENTER CENTER CENTER  OFF ON ALL CENTER  CENTER CENTER CENTER  Unnecessary to set NO Unnecessary to set	TV SPEAKER LANGUAGE  CHANNEL SUMMARY  TUNER MODE	ON PORT  Set optionally  AIR

# SERVICE ADJUSTMENTS

## ADJUSTMENT PREPARATION

1. There are 2 ways of adjusting this model : One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and component.
2. Adjustment with the remote control unit is made on the basis of the initial setting values, however, the new setting values which adjust the screen to the optimum condition may differ from the initial settings.
3. Make sure that AC power is turned on correctly.
4. Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
5. Never touch any adjustment parts which are not specified in the list for this adjustment-variable resistors, transformers, condensers, etc.
6. Presetting before adjustment.  
Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

VIDEO STATUS	STANDARD
NOTCH	OFF
BASS, TREBLE, BALANCE	CENTER
HYPER SURROUND	OFF

## ADJUSTMENT INSTRUMENTS AND FIXTURES

1. DC voltmeter(or digital voltmeter)
2. Oscilloscope
3. Signal generator ( Pattern generator ) [NTSC / PAL-M / PAL-N]
4. Remote control unit
5. TV audio multiplex signal generator
6. Frequency counter

## ADJUSTMENT ITEMS

- B1 Power supply check
- IF VCO adjustment
- TV DET LEVEL adjustment
- RF AGC adjustment
- FOCUS adjustment
- DEFLECTION CIRCUIT adjustment  
[NTSC or PAL-M]  
[PAL-N]
- VIDEO / CHROMA adjustment
  - WHITE BALANCE ( Low light ) adjustment
  - WHITE BALANCE ( High light ) adjustment
  - SUB BRIGHT adjustment
  - SUB CONTRAST adjustment
  - PAL-M / PAL-N SUB COLOR adjustment
  - NTSC COLOR / TINT adjustment
- PIP circuit adjustment
  - DISPLAY POSITION adjustment
  - SUB CONTRAST adjustment
  - SUB COLOR adjustment
  - SUB TINT adjustment
  - RF AGC adjustment
- MTS circuit adjustment
  - INPUT LEVEL adjustment
  - STEREO VCO adjustment
  - SAP VCO adjustment
  - FILTER check
  - SEPARATION adjustment

# BASIC OPERATION OF SERVICE MENU

1. Tool of SERVICE MENU operation.  
Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU ITEMS

- With the SERVICE MENU, various settings can be made, and they are broadly classified in the following items of settings.
- PICTURE ..... This sets the setting values (adjustment values) of the VIDEO/CHROMA and DEFLECTION circuits.
  - SOUND ..... This sets the setting values (adjustment values) of the AUDIO circuit.
  - THEATER ..... This is used when the THEATER MODE is adjusted.
  - OTHERS ..... This sets the setting values (adjustment values) of the OTHERS circuit.
  - PIP 2TUNER ..... This sets the setting value (adjustment values) of the PICTURE-IN-PICTURE circuit.  
[PIP is means as PICTURE IN PICTURE]
  - COMB ..... This sets the setting values (adjustment values) of the comb filter circuit.
  - LOW LIGHT ..... This sets the setting values (adjustment values) of the WHITE BALANCE circuit.
  - HIGH LIGHT ..... This sets the setting values (adjustment values) of the WHITE BALANCE circuit.
  - RF AFC 1 ..... This is used when the IF VCO is adjusted. [Do not adjust about this item]
  - RF AFC 2 ..... This is used when the IF VCO is adjusted of the PIP. [Do not adjust about this item]
  - VCO(CW) ..... This is used when the IF VCO is adjusted. [Do not adjust about this item]
  - I<sup>2</sup>C BUS CTRL ..... This is used when ON/OFF of the I<sup>2</sup>C BUS CTRL is set. [Do not adjust about this item]

3. Basic Operations of the SERVICE MENU

(1) How to enter the SERVICE MENU.

Press the DISPLAY key and VIDEO STATUS key of the remote control unit simultaneously. The SERVICE MENU screen of Fig.1 will be displayed.

(2) Selection of SUB MENU screen

Press the UP / DOWN key of the MENU to select any of the following items.

(The letters of the selected items are displayed in yellow.)

- |                            |                                |
|----------------------------|--------------------------------|
| ● PICTURE                  | ● SOUND                        |
| ● THEATER                  | ● OTHERS                       |
| ● PIP 2TUNER               | ● COMB                         |
| ● LOW LIGHT                | ● HIGH LIGHT                   |
| ● RF AFC 1 [Do not adjust] | ● RF AFC2 [Do not adjust]      |
| ● VCO(CW) [Do not adjust]  | ● I2C BUS CTRL [Do not adjust] |

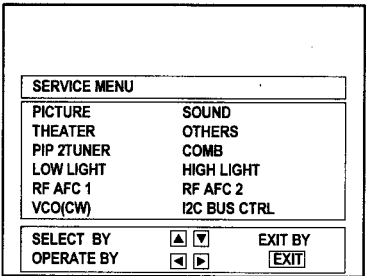


Fig.1

(3) Enter the any setting ( adjustment ) mode

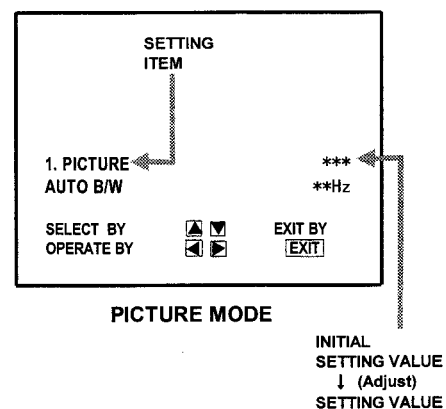
- PICTURE, SOUND, OTHERS and COMB mode
  - 1) If select any of PICTURE, SOUND , OTHERS and COMB items, and the LEFT / RIGHT key is pressed from SERVICE MENU ( MAIN MENU ), the SUB MENU screen will be displayed.
  - 2) Then the UP / DOWN key is pressed, the PICTURE mode screen, the SOUND mode screen, the OTHERS mode screen, the COMB mode screen is displayed, and the PICTURE, SOUND , OTHERS or COMB setting can be performed.
- THEATER, LOW LIGHT, HIGH LIGHT, RF AFC1, RF AFC 2, VCO(CW) and I<sup>2</sup>C BUS CTRL mode
  - 1) If select any of THEATER / LOW LIGHT / HIGH LIGHT / RF AFC 1 / RF AFC 2 / VCO(CW) / I2C BUS CTRL items, and the LEFT / RIGHT key is pressed from SERVICE MENU ( MAIN MENU ), the screens will be displayed.
  - 2) Then the settings or verifications can be performed.
- PIP mode
  - 1) If select the PIP item, and the LEFT / RIGHT key is pressed from SERVICE MENU (MAIN MENU), the screen will be displayed.
  - 2) Then UP / DOWN key is pressed, the PIP mode screen is displayed, and the PIP setting can be performed.

**(4) Setting method**

- 1) UP / DOWN key of the MENU  
Select the item.
- 2) LEFT / RIGHT key of the MENU  
Setting(adjust) the value of the items.  
When the key is released the setting value will be stored (memorized).
- 3) EXIT key  
Returns to the previous screen.

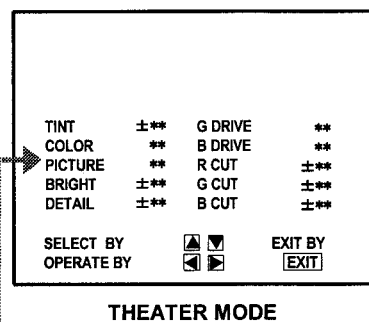
**[NOTE] (PICTURE & COMB MODE ONLY)**

When the INITIAL SETTING VALUE is turned to yellow, you can adjust the values but you cannot adjust the values when it is turned to red (because the signal conditions, etc. are met).

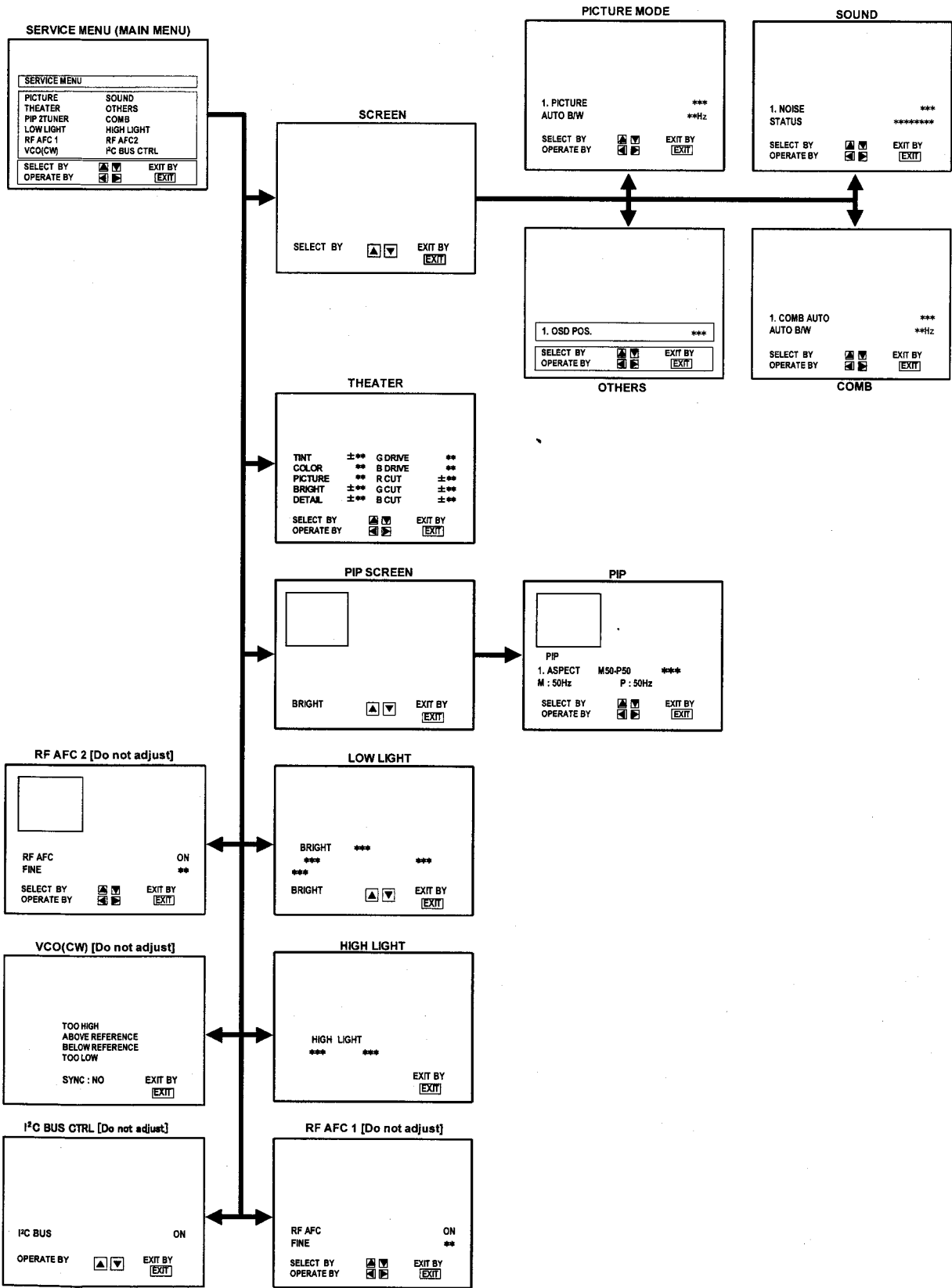
**(5) Releasing SERVICE MENU**

- 1) After returning to the SERVICE MENU upon completion of the setting (adjustment) work, press the EXIT key again.

★ The settings for LOW LIGHT and HIGH LIGHT are described in the WHITE BALANCE page of ADJUSTMENT.

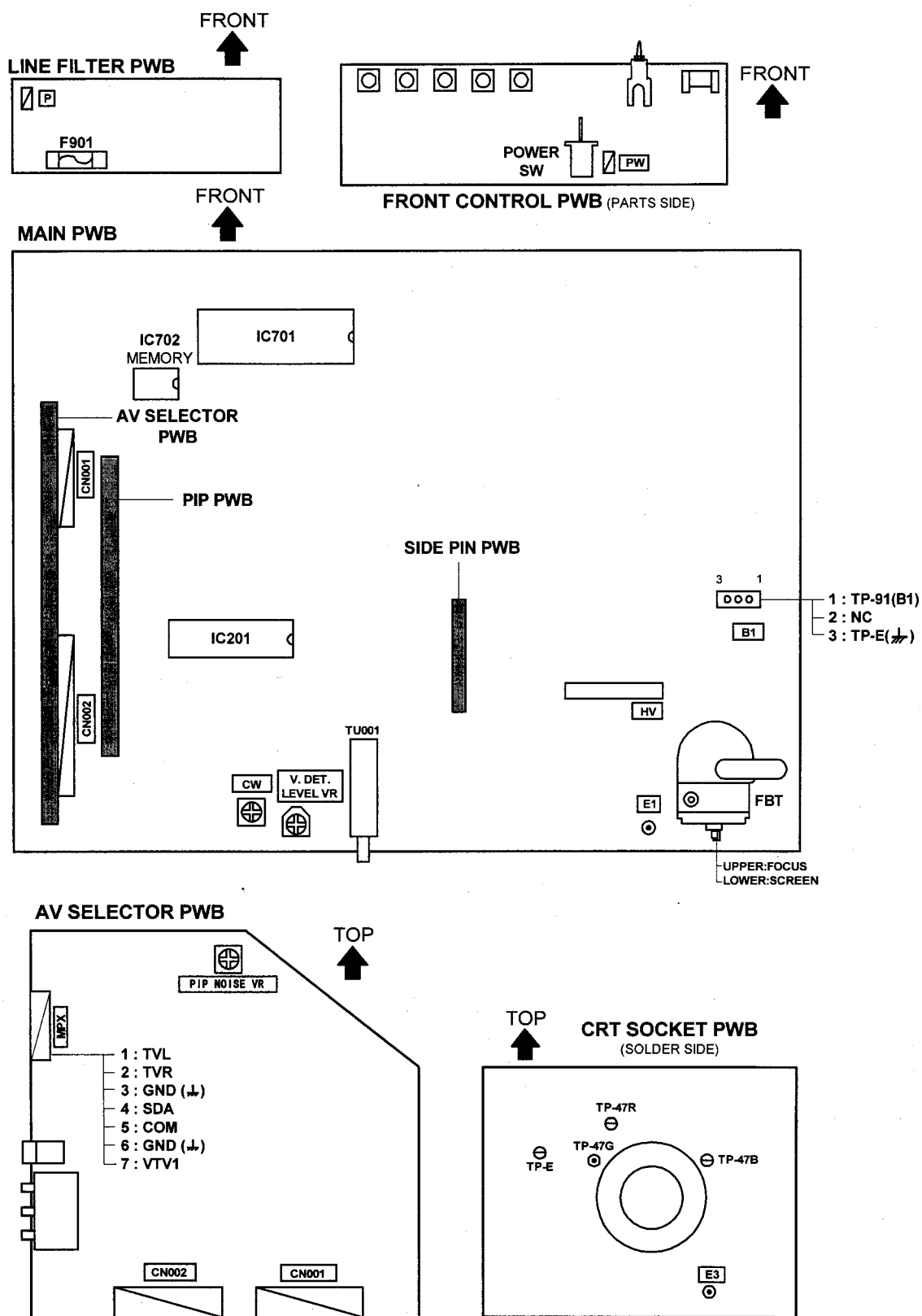


[ The letter of the selected items are displayed in yellow. ]





# ADJUSTMENT LOCATIONS



## INITIAL SETTING VALUE OF SERVICE MENU

1. Adjustment of the **SERVICE MENU** is made on the basis of the initial setting values ; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.
2. Do not change the initial Setting Values of the Setting (Adjustment) items not listed in "ADJUSTMENT".

### ● PICTURE MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	PICTURE	0~127	70
2.	BRIGHT	0~127	64
3.	COL. PAL-M	0~127	64
4.	COL. PAL-N	0~127	64
5.	COL. NTSC	0~127	64
6.	TINT	0~127	65
7.	TV DTL	0~63	31
8.	EXT CV PICT.	±25	±0
9.	EXT CV BRI.	±25	±0
10.	EXT CV COL.	±25	±0
11.	EXT CV TINT	±25	+3
12.	EXT CV DTL	0~63	29
13.	EXT SV PICT.	+25	±0
14.	EXT SV BRI.	+25	±0
15.	EXT SV COL.	+25	±0
16.	EXT SV TINT	+25	±3
17.	SV DTL	0~63	26
18.	P/N KILL	0~1	1
19.	Y S CONT	0~31	31
20.	TV Y-DL PAL	0~7	0
21.	TV Y-DL NTSC	0~7	1
22.	EXT Y-DL	0~7	0
23.	WPL SW	0~1	0
24.	Y GAMMA	0~1	0
25.	P/N G P.	0~1	0
26.	COL. L SW	0~1	1
27.	COL. LMT	0~3	1
28.	PN C. ATT	0~3	1
29.	OFST. SW	0~1	0
30.	OFFSET. B-Y	0~15	8
31.	OFFSET. R-Y	0~15	8
32.	TV C-TOF PAL	0~1	1
33.	TV T FO PAL	0~3	1
34.	TV T Q PAL	0~3	0
35.	TV C-TOF NTSC	0~1	0
36.	TV T FO NTSC	0~3	0
37.	TV T Q NTSC	0~3	0
38.	EXT C-TOF PAL	0~1	1
39.	EXT T FO PAL	0~3	0
40.	EXT T Q PAL	0~3	0
41.	EXT C-TOF NTSC	0~1	1
42.	EXT T FO NTSC	0~3	0
43.	EXT T Q NTSC	0~3	0
44.	C-TRAP	0~1	1
45.	C-TR. FO	0~3	2

No.	Setting (Adjustment) item	Variable range	Initial setting value
46.	C-TRAP Q	0~3	0
47.	FIX B/W	0~1	0
48.	APA P FO	0~3	2
49.	DC TRAN	0~7	4
50.	B. ST. SW	0~1	0
51.	B. ST. PO.	0~7	2
52.	ABL GAIN	0~7	4
53.	ABL PO.	0~7	2
54.	HALF T.	0~2	1
55.	DRV G SW	0~1	0
56.	NT. COMB	0~1	0
57.	COIN DET	0~3	3
58.	NOISE L	0~3	3
59.	VCD MODE	0~1	0
60.	V AGC SP	0~1	0
61.	V. POS. 50	0~7	3
62.	V. SIZE 50	0~127	74
63.	V. LIN. 50	0~31	21
64.	V. EDGE 50	0~15	6
65.	H. POS. 50	0~31	8
66.	H. BLK. 50	0~7	0
67.	H. SIZE 50	0~63	45
68.	EW PIN 50	0~63	15
69.	TRAPEZ 50	0~63	24
70.	V S CR 50	0~31	0
71.	V POS. 60	0~7	0
72.	V SIZE 60	0~127	72
73.	V LIN. 60	0~31	21
74.	V EDGE 60	0~15	7
75.	H POS. 60	0~31	11
76.	H BLK. 60	0~7	0
77.	H SIZE 60	0~63	44
78.	EW PIN 60	0~63	15
79.	TRAPEZ 60	0~63	30
80.	V S CR 60	0~31	0
81.	AGC-MAIN	0~255	160

● SOUND MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	NOISE	0~1	1
2.	IN LEVEL	0~63	15
3.	FH MON.	0~1	0
4.	ST VCO	0~63	25
5.	PILOT	0~1	0
6.	FILTER	0~63	30
7.	LOW SEP.	0~63	22
8.	HI SEP.	0~63	23
9.	5FH MON.	0~1	0
10.	SAP VCO	0~63	26
11.	IN GAIN	0~1	0
12.	FIL. OFF	0~10	0

## ● THEATER MODE

Setting (Adjustment) item	Variable range	Initial setting value
TINT	±20	±00
COLOR	±20	-3
PICTURE	±20	-20
BRIGHT	±20	±00
DETAIL	±15	±00
G DRIVE	-99~+50	-22
B DRIVE	-99~+50	-54
R CUT. (R CUTOFF)	±10	±00
G CUT. (G CUTOFF)	±10	±00
B CUT. (B CUTOFF)	±10	±00

## ● OTHERS MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	OSD POS	0~31	6
2.	LOCK DET	0~1	0
3.	SD SEL	0~2	0
4.	H CK SW	0~1	0
5.	PIP LAST MEMO	0~1	0
6.	PAL C-TOF SW	0~1	0

## ● COMB MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	COMB AUTO	0~1	1
2.	TV SW	0~7	5
3.	VENH	0~7	3
4.	CBPF	0~7	1
5.	KILLER	0~1	0
6.	1LINEPOT	0~1	0
7.	CORING	0~1	0

## ● LOW LIGHT MODE

Setting (Adjustment) item	Variable range	Initial setting value
R CUTOFF	0 ~ 255	20
G CUTOFF	0 ~ 255	20
B CUTOFF	0 ~ 255	20

## ● HIGH LIGHT MODE

Setting (Adjustment) item	Variable range	Initial setting value
G DRIVE	0 ~ 255	128
B DRIVE	0 ~ 255	128

## ● RF AFC 1 MODE

Setting (Adjustment) item	Variable range	Initial setting value
RF AFC 1	ON / OFF	ON
FINE	-77 ~ +77	±** (Do not adj.)

## ● RF AFC 2 MODE

Setting (Adjustment) item	Variable range	Initial setting value
RF AFC 2	ON / OFF	ON
FINE	-77 ~ +77	±** (Do not adj.)

● I<sup>2</sup>C BUS CTRL MODE

Setting (Adjustment) item	Variable range	Initial setting value
I <sup>2</sup> C BUS	ON/OFF	ON (Fixed)

## ● PIP MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	ASPECT M50-P50	0~31	22
2.	V POS. M50-P50	0~127	24
3.	LOWER POS. M50-P50	0~127	71
4.	H POS M50-P50	0~127	42
5.	RIGHT POS M50-P50	0~127	73
6.	ASPECT M50-P60	0~31	25
7.	V POS. M50-P60	0~127	24
8.	LOWER POS. M50-P60	0~127	77
9.	H POS. M50-P60	0~127	48
10.	RIGHT POS. M50-P60	0~127	89
11.	ASPECT M60-P50	0~31	25
12.	V POS. M60-P50	0~127	20
13.	LOWER POS. M60-P50	0~127	64
14.	H POS. M60-P50	0~127	45
15.	RIGHT POS. M60-P50	0~127	91
16.	ASPECT M60-P60	0~31	22
17.	V POS. M60-P60	0~127	21
18.	LOWER POS. M60-P60	0~127	59
19.	H POS. M60-P60	0~127	41
20.	RIGHT POS. M60-P60	0~127	80
21.	V AREA P50	0~3	2
22.	H AREA P50	0~3	3
23.	CLAMP POS. P50	0~3	1
24.	FRAME P50	0~3	3
25.	V AREA P60	0~3	2
26.	H AREA P60	0~3	2
27.	CLAMP POS. P60	0~3	1
28.	FRAME P60	0~3	3
29.	PICTURE	0~127	0
30.	BRIGHT	0~127	0
31.	COLOR	0~127	0
32.	DETAIL	0~63	15
33.	R CUTOFF	0~255	0
34.	G CUTOFF	0~255	0
35.	B CUTOFF	0~255	0
36.	G DRIVE	0~255	0
37.	B DRIVE	0~255	0
38.	Y-DL PAL	0~7	0
39.	Y-DL NTSC	0~7	0
40.	Y/C DELAY PAL	0~7	4

No.	Setting (Adjustment) item	Variable range	Initial setting value
41.	Y/C DELAY NTSC	0~7	4
42.	P/N KILL	0~1	0
43.	Y S CONT	0~31	31
44.	WPL SW	0~1	0
45.	Y GAMMA	0~1	0
46.	P/N G P.	0~1	0
47.	TOF F0	0~3	0
48.	TOF Q	0~3	0
49.	C-TRAP	0~1	0
50.	C-TRAP F0	0~3	2
51.	C-TRAP Q	0~3	0
52.	APA P. F0	0~3	1
53.	DC TRAN.	0~7	4
54.	B. ST. SW	0~1	0
55.	B. ST. P0.	0~7	0
56.	DRV G SW	0~1	0
57.	VCD MODE	0~1	0
58.	H PHASE P50	0~31	7
59.	V PHASE P50	0~7	0
60.	H PHASE P60	0~31	6
61.	V PHASE P60	0~7	0
62.	RGB CONT.	0~255	128
63.	CONT2	0~63	32
64.	TINT	0~127	62
65.	COLOR2	0~63	32

# ADJUSTMENTS

## B1 POWER SUPPLY

Item	Measuring instrument	Test point	Adjustment item	Description
Check of B1 Power supply	Signal generator DC Voltmeter	B1 Connector 1 pin (TP-91)  B1 connector 3 pin (TP-E) (⚡)		<ol style="list-style-type: none"> <li>1. Input a black and white signal (color off).</li> <li>2. Connect the DC voltmeter to B1 connector 1 pin (TP-91) and TP-E (⚡) (B1 connector 3 pin).</li> <li>3. Confirm that the voltage is <math>DC136.5V \pm 2.5V</math>.</li> </ol>

## ADJUSTMENT OF IF VCO

Item	Measuring instrument	Test point	Adjustment item	Description
IF VCO adjustment	Oscilloscope		CW TRANSF. [MAIN PWB]	<p>● It must not adjust without signal.</p> <ol style="list-style-type: none"> <li>1. Receive a NTSC broadcast ( use channel without offset frequency).</li> <li>2. Select VCO(CW) from SERVICE MENU.</li> <li>3. Turn the CW transf. until the colour of the characters [TOO HIGH] displays on the screen changes yellow. At that time confirm the display that [SYNC:YES].</li> <li>4. Then turn the CW transf counter-clockwise until the colour of the characters [BELOW REFERENCE] changes yellow, and again confirm the display [SYNC:YES].</li> <li>5. Again turn the CW transf. to clockwise until the colour of the characters [ABOVE REFERENCE] changes yellow.</li> <li>6. Push EXIT key to turn to the SERVICE MENU.</li> </ol>

TOO HIGH  
ABOVE REFERENCE  
BELOW REFERENCE  
TOO LOW

YELLOW

SYNC : YES

EXIT BY  
EXIT

Careful

## ADJUSTMENT OF TV DET LEVEL

Item	Measuring instrument	Test point	Adjustment item	Description
TV DET. LEVEL Adjustment	Oscilloscope  Signal generator	MPX connector 7 pin VTV1  MPX connector 6 pin GND (⚡)  [AV SELECTOR PWB]	VIDEO DET VR [MAIN PWB]	<ol style="list-style-type: none"> <li>1. Input a color bar signal which includes the 100% white part.</li> <li>2. Connect the oscilloscope to 7 pin of MPX connector and 6 pin (⚡).</li> <li>3. Adjust the VIDEO DET VR as the level from sync to 100% WHITE become <math>1.00 \pm 0.04V</math>( peak to peak ).</li> </ol>

100% White

1.0Vp-p

**ADJUSTMENT OF RF AGC**

Item	Measuring instrument	Test point	Adjustment item	Description
<b>RF AGC adjustment</b>			<b>No.81 AGC MAIN</b>	<ol style="list-style-type: none"> <li>1. Receive a broadcast.</li> <li>2. Select "No.81 AGC MAIN" of the PICTURE mode in SERVICE MENU.</li> <li>3. Press the MUTE key and turn off color.</li> <li>4. With the MENU LEFT key, get noise in the screen picture. (0 side of setting value)</li> <li>5. Press the MENU RIGHT key to up the setting value and stop when noise disappears on the picture.</li> <li>6. Change to other channels and make sure that there is no irregularity.</li> <li>7. Press the MUTE key to exit adjustment mode.</li> </ol>

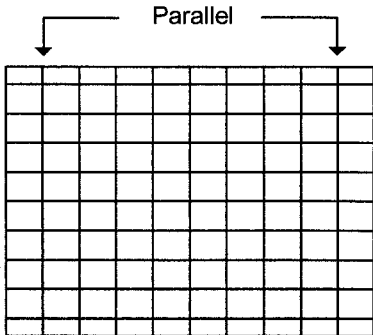
**ADJUSTMENT OF FOCUS**

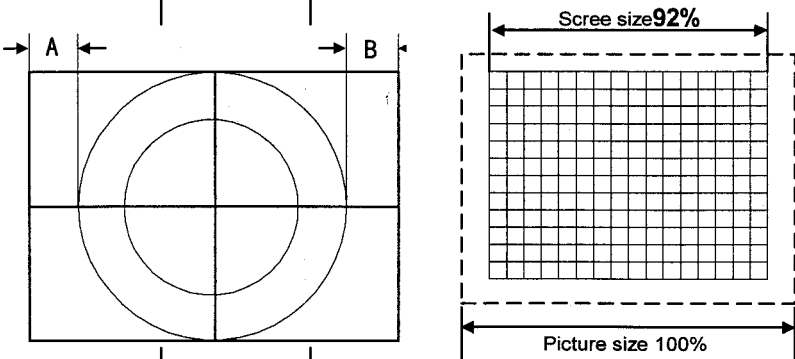
Item	Measuring instrument	Test point	Adjustment item	Description
<b>FOCUS adjustment</b>	<b>Signal generator</b>		<b>FOCUS VR [In FBT]</b>	<ol style="list-style-type: none"> <li>1. Input a crosshatch signal.</li> <li>2. While looking at the screen, adjust the FOCUS VR to make the vertical and horizontal lines will be clear and in fine detail.</li> <li>3. Make sure that the picture is in focus even when the screen gets darkened.</li> </ol>



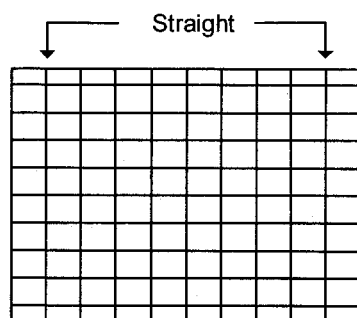
# ADJUSTMENT OF DEFLECTION CIRCUIT

[ NTSC or PAL-M SIGNAL ADJUSTMENT ( 60Hz signal ) ]

Item	Measuring instrument	Test point	Adjustment item	Description
<b>TRAPEZ adjustment</b>  	<b>Signal Generator</b> <b>Remote control unit</b>		<b>No.79 TRAPEZ 60</b>	<ol style="list-style-type: none"> <li>1. Input a crosshatch signal of the NTSC or PAL-M.</li> <li>2. Select the "No.79 TRAPEZ 60" of the PICTURE mode in SERVICE MENU.</li> <li>3. Adjust the "No.79 TRAPEZ 60" to bring the vertical lines of the screen edges are parallel.</li> </ol>
<b>V.SIZE and V.LINEARITY V.POSITION Adjustment</b>	<b>Signal generator</b>  <b>Remote control unit</b>		<b>No.72 V. SIZE 60</b> <b>No.73 V. LIN. 60</b> <b>No.71 V. POS. 60</b>	<ol style="list-style-type: none"> <li>1. Input a crosshatch signal of the NTSC or PAL-M.</li> <li>2. Select the "No.72 V. SIZE 60" of the PICTURE mode in SERVICE MENU.</li> <li>3. Adjust the vertical SCREEN size to <b>92%</b> with the "No.72 V SIZE 60".</li> <li>4. Then select the "No.73 V. LIN. 60", and adjust the linearity of the top and bottom part of the screen to correct.</li> <li>5. And then confirm the "No.71 V. POS. 60" value is 0.</li> </ol>
<b>H. POSITION H. SIZE adjustment</b>	<b>Signal Generator</b>  <b>Remote control unit</b>		<b>No.75 H. POS. 60</b> <b>No.77 H. SIZE 60</b>	<ol style="list-style-type: none"> <li>1. Input a crosshatch circle signal of the NTSC or PAL-M.</li> <li>2. Select the "No.75 H. POS. 60" of the PICTURE mode in SERVICE MENU.</li> <li>3. Adjust the "No.75 H. POS. 60" to make the A=B as shown in figure.</li> <li>4. And then, adjust the "No.77 H. SIZE 60" to make the horizontal size to <b>92%</b> of the picture size as shown in figure below.</li> <li>5. As required repeat above steps 2 and 4.</li> </ol>



Item	Measuring instrument	Test point	Adjustment item	Description
<b>EW PIN CORRECT V. LINEARITY adjustment</b>	Signal generator  Remote control unit		No.78 EW PIN 60 No.74 V. EDGE 60 No.80 V S CR 60	<ol style="list-style-type: none"> <li>1. Input the crosshatch signal of the NTSC or PAL-M.</li> <li>2. Select the "No.78 EW PIN 60" of the PICTURE mode in SERVICE MENU.</li> <li>3. Adjust the "No.78 EW PIN 60" to make the second vertical lines at the left and right edges almost straight.</li> </ol> <p>★ if the left and right edges does not get almost straight, select pin instead of barrel.</p> <ol style="list-style-type: none"> <li>4. If the linearity is too bad, select "No.74 V. EDGE 60", "No.80 V S CR 60" to adjust to get exact square of crosshatch pattern.</li> </ol>

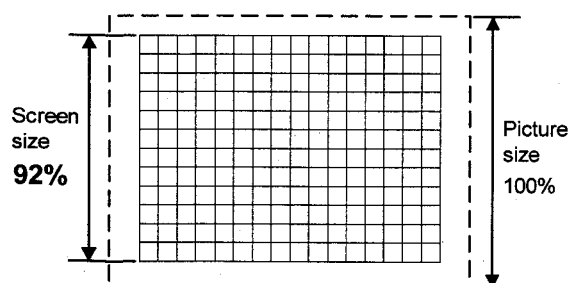
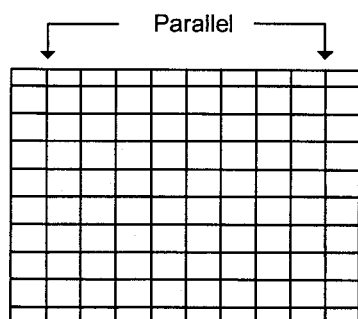


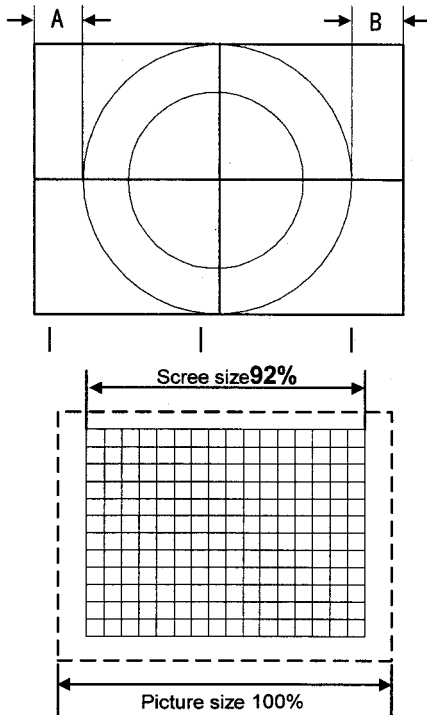
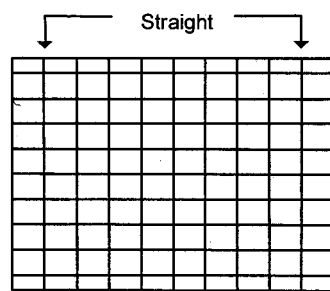
## [ PAL-N SIGNAL ADJUSTMENT ( 50Hz signal ) ]

Item	Measuring instrument	Test point	Adjustment item	Description
<b>TRAPEZ adjustment</b>	Signal Generator		No.69 TRAPEZ 50	<ol style="list-style-type: none"> <li>1. Input a crosshatch signal of the PAL-N.</li> <li>2. Select the "No.69 TRAPEZ 50" of the PICTURE mode in SERVICE MENU.</li> <li>3. Adjust the "No.69 TRAPEZ 50" to bring the vertical lines of the screen edges are parallel.</li> </ol>

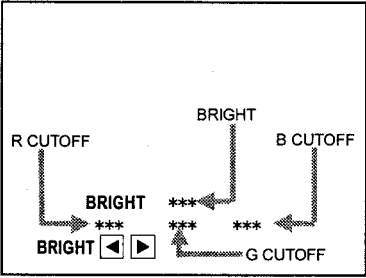
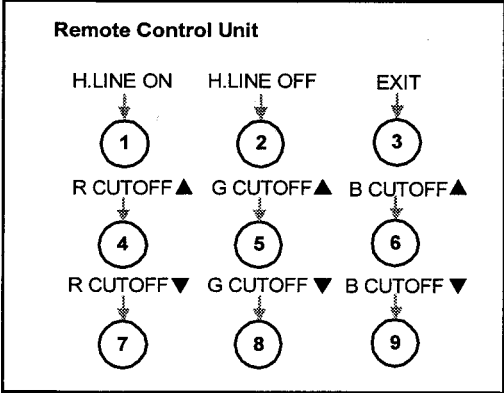
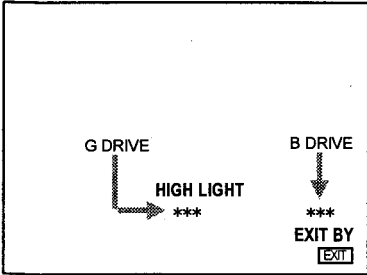
  

<b>V.SIZE and V.LINEARITY V.POSITION Adjustment</b>	Signal generator		No.62 V. SIZE 50 No.63 V. LIN. 50 No.61 V. POS. 50	<ol style="list-style-type: none"> <li>1. Input a crosshatch signal of the PAL-N.</li> <li>2. Select the "No.62 V. SIZE 50" of the PICTURE mode in SERVICE MENU.</li> <li>3. Adjust the vertical SCREEN size to <b>92%</b> with the "No.62 V SIZE 50".</li> <li>4. Then select the "No.63 V. LIN. 50", and adjust the linearity of the top and bottom part of the screen to correct.</li> <li>5. And adjust "No.61 V. POS. 50" to get the vertical center line and CRT vertical center as agree as possible.</li> </ol>
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Item	Measuring instrument	Test point	Adjustment item	Description
<b>H. POSITION</b> <b>H. SIZE</b> adjustment	Signal generator		No.65 H. POS. 50 No.67 H. SIZE 50	<ol style="list-style-type: none"> <li>1. Input a crosshatch circle signal of the PAL-N.</li> <li>2. Select the "No.65 H. POS. 50" of the PICTURE mode in SERVICE MENU.</li> <li>3. Adjust the "No.65 H. POS. 50" to make the A=B as shown in figure.</li> <li>4. And then, adjust the "No.67 H. SIZE 50" to make the horizontal size to <b>92%</b> of the picture size as shown in figure.</li> <li>5. As required above steps 2 and 4.</li> </ol>
				
<b>EW PIN</b> <b>CORRECT</b> <b>V. LINEARITY</b> adjustment	Signal generator  Remote control unit		No.68 EW PIN 50 No.64 V. EDGE 50 No.70 V S CR 50	<ol style="list-style-type: none"> <li>1. Input the crosshatch signal of the PAL-N.</li> <li>2. Select the "No.68 EW PIN 50" of the PICTURE mode in SERVICE MENU.</li> <li>3. Adjust the "No.68 EW PIN 50" to make the second vertical lines at the left and right edges almost straight.</li> </ol> <p>★ if the left and right edges does not get almost straight, select pin instead of barrel.</p> <ol style="list-style-type: none"> <li>4. If the linearity is too bad, select "No.64 V. EDGE 50", "No.70 V S CR 50" to adjust to get exact square of crosshatch pattern.</li> </ol>
				

ADJUSTMENT OF VIDEO / CHROMA CIRCUIT

Item	Measuring instrument	Test point	Adjustment item	Description
WHITE BALANCE (Low Light) adjustment	Signal generator Remote control unit		BRIGHT R CUTOFF G CUTOFF B CUTOFF SCREEN VR [In FBT]	<div>1. Input a black and white signal (color off).</div> <div>2. Select the LOW LIGHT mode from the SERVICE MENU.</div> <div>3. Confirm the Initial setting value of "BRIGHT", "R CUTOFF", "G CUTOFF" and "B CUTOFF".</div> <div>4. Display one horizontal line by pressing the ①key of the remote control unit.</div> <div>5. Turn the SCREEN VR all the way to the left.</div> <div>6. Turn the SCREEN VR gradually to the clockwise until either one of the red, blue or green colors faintly visible.</div> <div>7. Use 4~9 keys of the remote control unit and adjust the other 2 colours to where the single horizontal line appears white.</div> <div>8. Turn the SCREEN VR until the single horizontal line glows faintly.</div> <div>9. Press the 2 key to return to the regular screen.</div> <div>10. Check the PIP brightness and adjust it by the screen VR if it is not optimum.</div>
<div>[LOW LIGHT] MODE</div> <div></div> <div></div>				
WHITE BALANCE (High Light) adjustment	Signal generator Remote control unit		G DRIVE B DRIVE	<div>1. Input a black and white signal (color off).</div> <div>2. Select the HIGH LIGHT mode in the SERVICE MENU.</div> <div>3. Confirm the initial setting value of "G DRIVE" and "B DRIVE".</div> <div>4. Adjust the screen color to white with the 5, 6, 8 and 9 keys of the remote control unit. Not to adjust the R drive.</div>
<div>[HIGH LIGHT] MODE</div> <div></div> <div><div>Remote Control Unit</div><div>①key : H.LINE ON</div><div>②key : H.LINE OFF</div><div>③key : EXIT</div><div>⑤key : G DRIVE ▲</div><div>⑥key : B DRIVE ▲</div><div>⑧key : G DRIVE ▼</div><div>⑨key : B DRIVE ▼</div></div>				

Item	Measuring instrument	Test point	Adjustment item	Description
<b>SUB BRIGHT adjustment</b>	Remote control unit		<b>No.2 BRIGHT</b>	<ol style="list-style-type: none"> <li>1. Receive any broadcast.</li> <li>2. Select "No.2 BRIGHT" of the PICTURE mode in SERVICE MENU.</li> <li>3. Confirm the initial setting value of the "No.2 BRIGHT".</li> <li>4. If the brightness is not the best with the initial setting value, make fine adjustment of the "No.2 BRIGHT" until you get the optimum brightness.</li> </ol>
<b>SUB CONTRAST adjustment</b>	Remote control unit		<b>No.1 PICTURE</b>	<ol style="list-style-type: none"> <li>1. Receive any broadcast.</li> <li>2. Select "No.1 PICTURE" of the PICTURE mode in SERVICE MENU.</li> <li>3. Confirm the initial setting value of the "No.1 PICTURE".</li> <li>4. If the contrast is not the best with the initial setting value, make fine adjustment of the "No.1 PICTURE" until you get the optimum contrast.</li> </ol>
<b>PAL-M PAL-N SUB COLOR adjustment</b>	Remote control unit		<b>No.3 COL. PAL-M</b>	<ol style="list-style-type: none"> <li>1. Receive any PAL-M broadcast.</li> <li>2. Select "No.3 COL.PAL-M" of the PICTURE mode in SERVICE MENU.</li> <li>3. Confirm the initial setting value of the "No.3 COL.PAL-M".</li> <li>4. If the color is not the best with the initial setting value, make fine adjustment until you get the best color.</li> </ol>
			<b>No.4 COL. PAL-N</b>	<ol style="list-style-type: none"> <li>1. Receive any PAL-N broadcast.</li> <li>2. Select "No.4 COL.PAL-N" of the PICTURE mode in SERVICE MENU.</li> <li>3. Confirm the initial setting value of the "No.4 COL.PAL-N".</li> <li>4. If the color is not the best with the initial setting value, make fine adjustment until you get the best color.</li> </ol>
<b>NTSC COLOR TINT adjustment</b>	Remote control unit		<b>No. 5 COL. NTSC</b>	<ol style="list-style-type: none"> <li>1. Receive any NTSC broadcast.</li> <li>2. Select "No. 5 COL. NTSC" of the PICTURE mode in SERVICE MENU.</li> <li>3. Confirm the initial setting value on the "No. 5 COL. NTSC".</li> <li>4. If the this in not the best with the initial setting value, make fine adjustment until you get the best color.</li> </ol>
			<b>No. 6 TINT</b>	<ol style="list-style-type: none"> <li>1. Receive any NTSC broadcast.</li> <li>2. Select "No. 6 TINT" of the PICTURE mode in SERVECE MENU.</li> <li>3. Confirm the initial setting value of the "No. 6 TINT".</li> <li>4. If the tint is not the best with the initial setting value, make fine adjustment until you get the best tint.</li> </ol>

ADJUSTMENT OF PIP CIRCUIT

Item	Measuring instrument	Test point	Adjustment item	Description																		
PIP DISPLAY POSITION adjustment	Signal generator		No.2 V POSITION M50-P50 No.3 LOWER POS. M50-P50 No.4 H POSITION M50-P50 No.5 RIGHT POS. M50-P50  No.7 V POSITION M50-P60 No.8 LOWER POS. M50-P60 No.9 H POSITION M50-P60 No.10 RIGHT POS. M50-P60  No.12 V POSITION M60-P50 No.13 LOWER POS. M60-P50 No.14 H POSITION M60-P50 No.15 RIGHT POS. M60-P50  No.17 V POSITION M60-P60 No.18 LOWER POS. M60-P60 No.19 H POSITION M60-P60 No.20 RIGHT POS. M60-P60	<div>1. Input a black and white signal (color off) to both MAIN and PIP screen as shown in the table below.</div> <div>2. Select "No.2 V POSITION" of the PIP mode in SERVICE MENU.</div> <div>3. Confirm the initial setting value of the "No.2 V POSITION".</div> <div>4. Adjust the "No.2 V POSITION" so that the position of the PIP screen edge of upper will be at X1 as shown in the table below.</div> <div>5. Adjust the corresponding modes of "No.3, No.4, No.5" with the same steps as 2 ~ 4 above.</div> <div>6. Then change the input signal combination of the MAIN and PIP screen as shown in the table below, and adjust same step as 3 ~ 5.</div>																		
			<table><tr><th>STEP</th><th>MAIN SCREEN</th><th>PIP SCREEN</th></tr><tr><td>①</td><td>PAL-N [50Hz]</td><td>PAL-N [50Hz]</td></tr><tr><td>②</td><td>PAL-N [50Hz]</td><td>NTSC/PAL-M [60Hz]</td></tr><tr><td>③</td><td>NTSC/PAL-M [60Hz]</td><td>PAL-M [50Hz]</td></tr><tr><td>④</td><td>NTSC/PAL-M [60Hz]</td><td>NTSC/PAL-M [60Hz]</td></tr></table>	STEP	MAIN SCREEN	PIP SCREEN	①	PAL-N [50Hz]	PAL-N [50Hz]	②	PAL-N [50Hz]	NTSC/PAL-M [60Hz]	③	NTSC/PAL-M [60Hz]	PAL-M [50Hz]	④	NTSC/PAL-M [60Hz]	NTSC/PAL-M [60Hz]				
STEP	MAIN SCREEN	PIP SCREEN																				
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④	NTSC/PAL-M [60Hz]	NTSC/PAL-M [60Hz]																				
<div><div><div>PIP screen</div><div><div><div></div><div></div><div></div><div></div></div><div>X1</div><div>X2</div><div>Y1</div><div>Y2</div></div></div></div>																						
				<table><tr><th></th><th></th><th>PIP SETING POSITION</th></tr><tr><th></th><th></th><th>Approx. (mm)</th></tr><tr><td>No.2 No.7 No.12 No.17</td><td>UPPER POSITION (X1)</td><td>40</td></tr><tr><td>No.3 No.8 No.13 No.17</td><td>LOWER POSITION (X2)</td><td>40</td></tr><tr><td>No.4 No.9 No.14 No.19</td><td>H POSITION (Y1)</td><td>50</td></tr><tr><td>No.5 No.10 No.15 No.20</td><td>RIGHT POSITION (Y2)</td><td>50</td></tr></table>			PIP SETING POSITION			Approx. (mm)	No.2 No.7 No.12 No.17	UPPER POSITION (X1)	40	No.3 No.8 No.13 No.17	LOWER POSITION (X2)	40	No.4 No.9 No.14 No.19	H POSITION (Y1)	50	No.5 No.10 No.15 No.20	RIGHT POSITION (Y2)	50
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No.5 No.10 No.15 No.20	RIGHT POSITION (Y2)	50																				

Item	Measuring instrument	Test point	Adjustment item	Description
<b>PIP SUB CONTRAST adjustment</b>			<b>No.63 CONT2</b>	<ol style="list-style-type: none"> <li>1. Receive a broadcast to both MAIN and PIP screen.</li> <li>2. Select "No.63 CONT2" of the PIP mode in the SERVICE MENU.</li> <li>3. Confirm the initial setting value of the "No.63 CONT2".</li> <li>4. If the contrast of the PIP screen is not the best with initial setting value, and too difficult during MAIN screen contrast, make fine adjustment of the "No.63 CONT2" until getting the optimum contrast.</li> </ol>
<b>PIP SUB COLOR adjustment</b>			<b>No.65 COLOR2</b>	<ol style="list-style-type: none"> <li>1. Receive a broadcast to both MAIN and PIP screen.</li> <li>2. Select "No.65 COLOR2" of the PIP mode in the SERVICE MENU.</li> <li>3. Confirm the initial setting value of the "No.65 COLOR2".</li> <li>4. If the color of the PIP screen is not the best with initial setting value, and too difficult during MAIN screen color, make fine adjustment of the "No.65 COLOR2" until getting the optimum color.</li> </ol>
<b>PIP SUB TINT adjustment</b>			<b>No.64 TINT</b>	<ol style="list-style-type: none"> <li>1. Receive a broadcast to both MAIN and PIP screen.</li> <li>2. Select "No.64 TINT" of the PIP mode in the SERVICE MENU.</li> <li>3. Confirm the initial setting value of the "No.64 TINT".</li> <li>4. If the tint of the PIP screen is not the best with the initial setting value, and too difficult during the MAIN screen tint, make fine adjustment of the "No.64 TINT" until getting the optimum tint.</li> </ol>
<b>PIP RF AGC Adjustment</b>			<b>PIP NOISE VR [AV SELECTOR PWB]</b>	<ol style="list-style-type: none"> <li>1. Receive a broadcast to both MAIN and PIP screen.</li> <li>2. Turn the PIP NOISE VR to get noise on the picture.</li> <li>3. Then turn the PIP NOISE VR counter direction, and stop where noise disappears on the picture.</li> </ol>

## ADJUSTMENT OF MTS CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL check			No.2 IN LEVEL	<ol style="list-style-type: none"> <li>1. Select the "No.2 IN LEVEL" of the SOUND mode in SERVICE MENU.</li> <li>2. Verify that the "No.2 IN LEVEL" is set at its initial setting value.</li> </ol>
MTS STEREO VCO adjustment	Signal generator Frequency counter	MPX Connector 2 pin TVR [AV SELECTOR PWB]	No.3 FH MON. No.4 ST. VCO	<ol style="list-style-type: none"> <li>1. Receive a RF signal (non modulated sound signal) from the antenna terminal.</li> <li>2. Select the "No.3 FH MON." of SOUND mode in SERVICE MENU, change the setting value from 0 to 1.</li> <li>3. Connect the frequency connector to pin 2 of MPX connector.</li> <li>4. Select the "No.4 ST. VCO".</li> <li>5. Confirm the initial setting value of the "No.4 ST. VCO".</li> <li>6. Adjust the "No.4 ST. VCO" so that the frequency counter will display <math>15.73\text{kHz} \pm 0.1\text{kHz}</math>.</li> <li>7. Select the "No.3 FH MON." of the SOUND mode, and reset the setting value from 1 to 0.</li> </ol>
MTS SAP VCO adjustment	Signal generator Frequency counter	MPX Connector 4 pin SDA 3 pin GND 2 pin TVR [AV SELECTOR PWB]	No.3 FH MON. No.10 SAP VCO.	<ol style="list-style-type: none"> <li>1. Receive a RF signal (non modulated sound signal) from the antenna terminal.</li> <li>2. Connect between pin 4 of MPX connector and GND (pin 3 of MPX connector) through <math>1\text{M}\Omega</math> resistor.</li> <li>3. Select the "No.3 FH MON." of the SOUND mode in SERVICE MENU, and reset the setting value from 0 to 1.</li> <li>4. Connect the frequency counter to pin 2 (R.OUT) of MPX connector.</li> <li>5. Select the "No.10 SAP VCO".</li> <li>6. Confirm the initial setting value of "No.10 SAP VCO".</li> <li>7. Adjust the "No.10 SAP VCO" so that the frequency counter will display <math>78.67\text{kHz} \pm 0.5\text{kHz}</math>.</li> <li>8. Select the "No.3 FH MON." of the SOUND mode, and reset the setting value from 1 to 0.</li> </ol>
MTS FILTER check			No.6 FILTER	<ol style="list-style-type: none"> <li>1. Select the "No.6 FLTER" of the SOUND mode in SERVICE MENU.</li> <li>2. Verify that the "No.6 FLTER" is set at its initial setting value.</li> </ol>



Item	Measuring instrument	Test point	Adjustment part	Description
<b>MTS SEPARATION adjustment</b>	TV audio multiplex signal generator  Oscilloscope	MPX Connector 1 pin TVL 2 pin TVR [AV SELECTOR PWB]	No.7 LOW SEP.  No.8 HI SEP.	<ol style="list-style-type: none"> <li>1. Input a stereo L signal (300Hz) from the TV Audio multiplex signal generator to the antenna terminal.</li> <li>2. Connect an oscilloscope to pin 1 (L.OUT) of MPX connector, and display one cycle portion of the 300Hz signal.</li> <li>3. Change the connection of the oscilloscope to pin 2 (R.OUT) of MPX connector, and enlarge the voltage axis.</li> <li>4. Select the "No.7 LOW SEP." of the SOUND mode in SERVICE MENU.</li> <li>5. Confirm the initial setting value of the "No.7 LOW SEP.".</li> <li>6. Adjust the "No.7 LOW SEP." so that the stroke element of the 300Hz signal will become minimum.</li> <li>7. Change the signal to 3kHz, and similarly adjust the "No.8 HI SEP.".</li> </ol>
<div data-bbox="211 689 818 958" data-label="Figure"> <p>The diagram illustrates the adjustment process for MTS separation. On the left, the 'L-Channel signal waveform' is shown as a sine wave with one full cycle marked. On the right, the 'R-Channel crosstalk portion' is shown as a curve that dips to a 'Minimum' point, which is indicated by a downward-pointing arrow. This visualizes the goal of minimizing crosstalk in the right channel when a left-channel signal is input.</p> </div>				

# HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

## 1. HIGH VOLTAGE HOLD DOWN CIRCUIT

After repairing the high voltage hold down circuit shown in Fig. 1.

This circuit shall be checked to operate correctly.

## 2. CHECKING OF THE HIGH VOLTAGE HOLD DOWN CIRCUIT

- (1) Turn the POWER SW ON.
- (2) As shown in Fig.2, set the resistor (between **X** connector **1** & **3** ).
- (3) Make sure that the screen picture disappears.
- (4) Temporarily unplug the power plug.
- (5) Remove the resistor (between **X** connector **1** & **3** ).
- (6) Again plug the power plug, make sure that the normal picture is displayed on the screen.

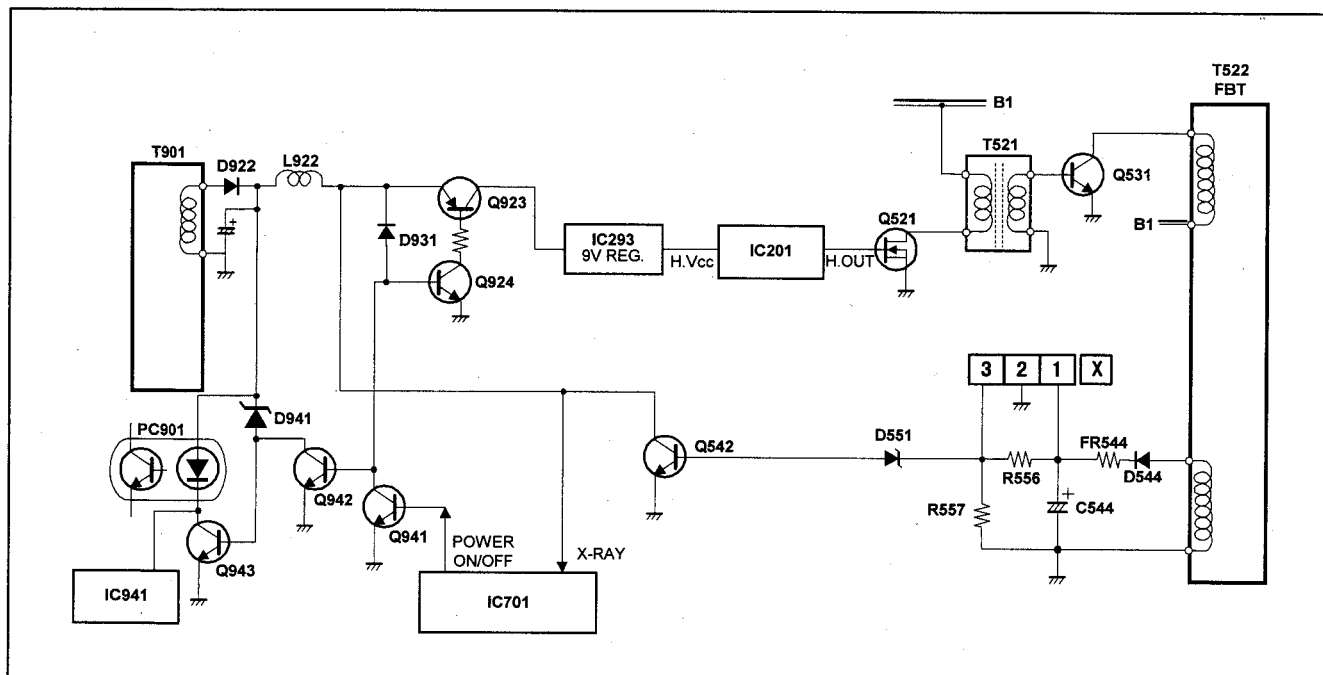


Fig. 1

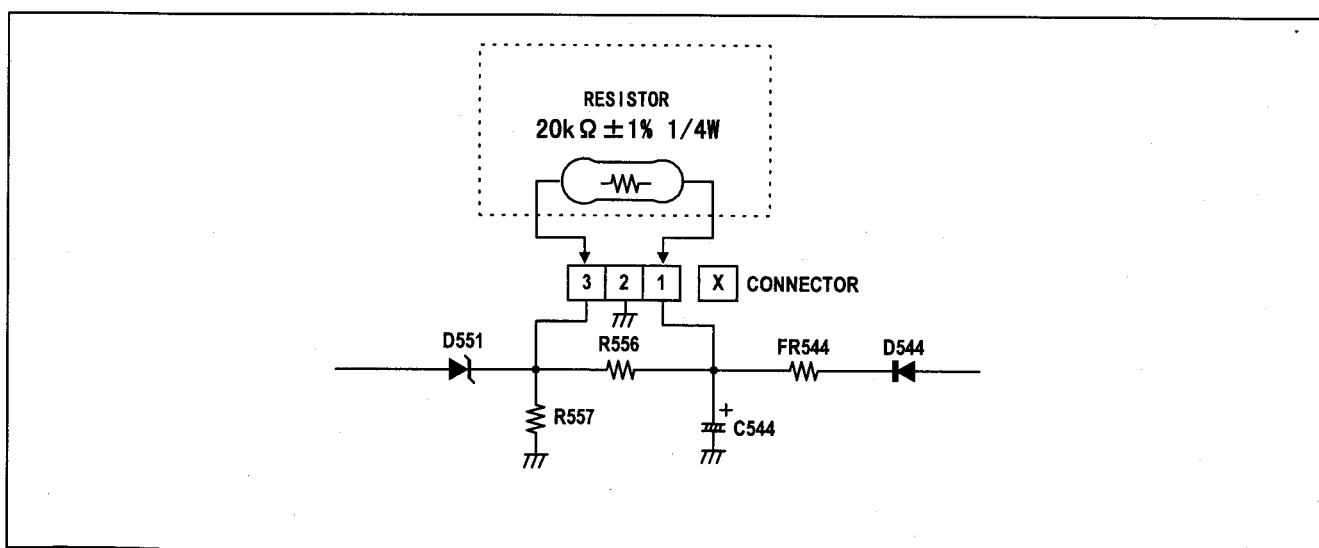


Fig.2

# PARTS LIST

## CAUTION

- The parts identified by the  $\triangle$  symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines — in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

## ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30%	+50%	+80%	+100%
						-10%	-10%	-20%	-0%

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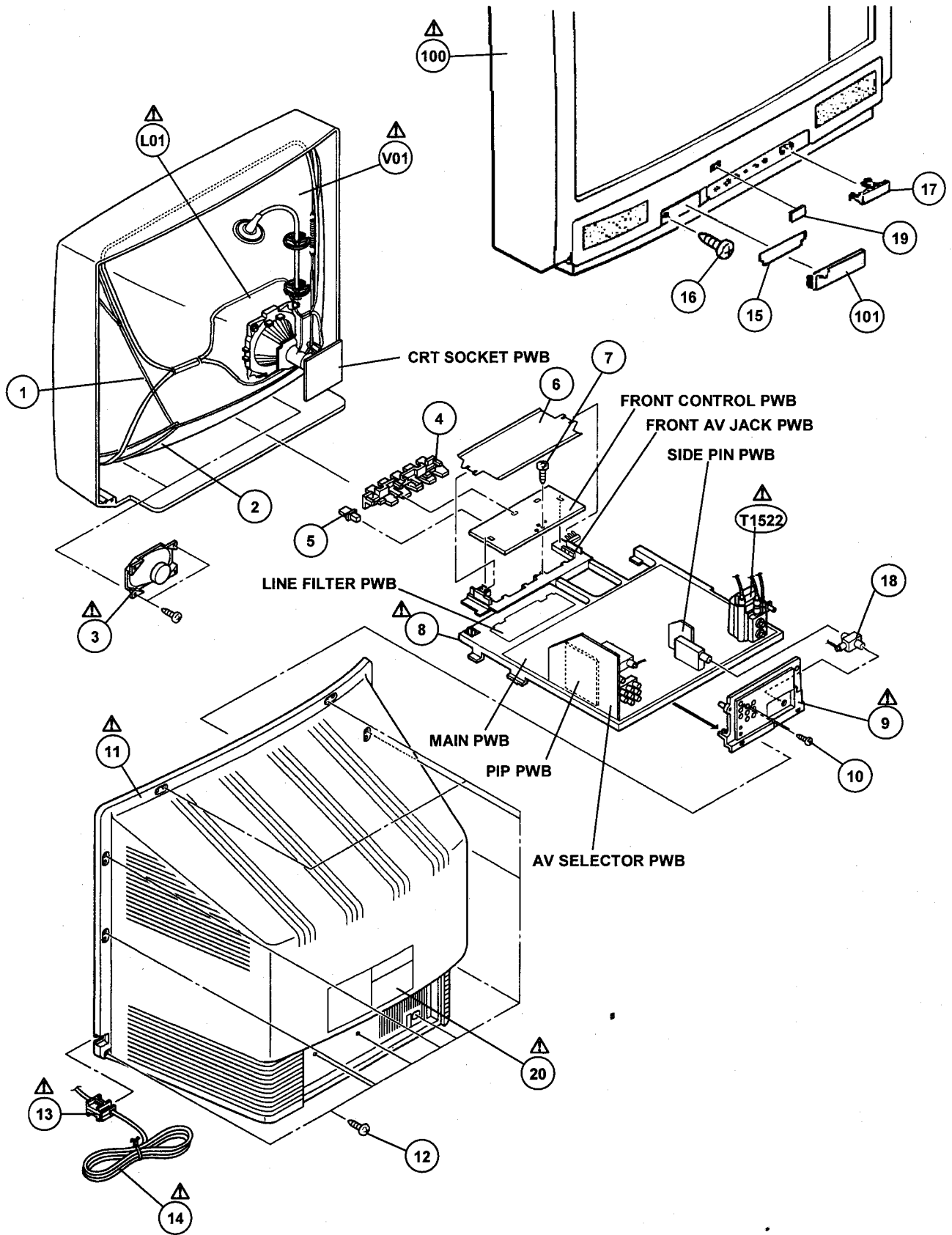
## REMOTE CONTROL UNIT PARTS LIST (RM-C735-1A)

△ Ref.No.	Part No.	Part Name	Description	Local
	103RRC-049-01AR	BATTERY COVER		

## EXPLODED VIEW PARTS LIST

△ Ref.No.	Part No.	Part Name	Description	Local
△ V01	A90AFX15X071	ITC TUBE(C)	Inc.DY	*
△ L01	CELD059-002J3	DEGAUSSING COIL	(×2)	*
△ T1522	QQH0025-001	FBT		*
1	CHGB0027-0A	BRAIDED ASSY		*
2	CHGB0016-0C	BRAIDED WIRE	(×2)	*
△ 3	CEBSS12D-02J2	SPEAKER	(×2)SP01,SP02	*
4	CM35776-A03-H	PUSH KNOB		*
5	CM36273-A01-H	POWER KNOB		*
6	CM36634-A01-H	PROTECTOR		*
7	QYSB5BG3010Z	TAPPING SCREW		*
△ 8	CM12985-001-VA	CHASSIS BASE		*
△ 9	LC20306-002A-VA	TERMINAL BOARD		*
10	QYSB5B3010Z	TAPPING SCREW	(×2)	*
△ 11	CM12634-004-MA	REAR COVER		*
12	QYSB5FG4016Z	TAPPING SCREW	(×11)	*
△ 13	CM23169-001-A	POWER CORD CLAMP		*
△ 14	QMPR030-200-JC	POWER CORD		*
15	CM48272-001-A	SHEET		*
16	QYSD5B3010M	TAPPING SCREW		*
17	CM35983-001-H	REMOCON WINDOW		*
18	CEGA008-001	ANTENNA SPLITTER		*
19	CM46084-A01	BRAND MARK		*
△ 20	LC31044-002A-A	RATING LABEL		*
△ 100	CM12747-00N-MA	FRONT CABINET	Inc.No.101	*
101	CM36162-005-A	DOOR		*

# EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

MAIN P.W. BOARD ASS'Y (SGB-1009A-M2)

Symbol No.	Part No.	Part Name	Description	Local
VARIABLE RESISTOR				
R1135	QVP0067-501Z	V R(DET LEVEL VR)	500Ω	*
RESISTOR				
R1001	NRSA02J-563X	MG R	56kΩ 1/10W J	*
Δ R1005	QRZ9017-4R7	FUSI. RESISTOR	4.7 Ω 1/4W J	*
R1006	NRSA02J-820X	MG R	82Ω 1/10W J	*
R1101	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R1102	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
R1103	QRE121J-101Y	C R	100Ω 1/2W J	*
R1104	NRSA02J-180X	MG R	18Ω 1/10W J	*
R1105	NRSA02J-270X	MG R	27Ω 1/10W J	*
R1111	NRSA02J-394X	MG R	390kΩ 1/10W J	*
R1112	NRSA02J-334X	MG R	330kΩ 1/10W J	*
R1113	NRSA02J-101X	MG R	100Ω 1/10W J	*
R1116	NRSA02J-680X	MG R	68Ω 1/10W J	*
R1131	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1132	NRSA02J-471X	MG R	470Ω 1/10W J	*
R1133	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1134	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1136	NRSA02J-271X	MG R	270Ω 1/10W J	*
R1161	NRSA02J-332X	MG R	3.3kΩ 1/10W J	*
R1162	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1163	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1164	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1165	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R1166	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1167	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1168	NRSA02J-101X	MG R	100Ω 1/10W J	*
R1169	NRSA02J-561X	MG R	560Ω 1/10W J	*
R1170	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R1201	NRSA02J-181X	MG R	180Ω 1/10W J	*
R1202	NRSA02J-271X	MG R	270Ω 1/10W J	*
R1203	NRSA02J-821X	MG R	820Ω 1/10W J	*
R1204	NRSA02J-681X	MG R	680Ω 1/10W J	*
R1205	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
R1213	NRSA02J-391X	MG R	390Ω 1/10W J	*
R1215	NRSA02J-824X	MG R	820kΩ 1/10W J	*
R1216	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1217	NRSA02J-564X	MG R	560kΩ 1/10W J	*
R1220	NRSA02J-471X	MG R	470Ω 1/10W J	*
R1231	NRSA02J-332X	MG R	3.3kΩ 1/10W J	*
R1232	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R1233	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
R1234	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1235	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R1236	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1292	QRL029J-220	OM R	22Ω 2W J	*
R1293	QRX016J-1R0	MF R	1.0Ω 1W J	*
R1301	NRSA02J-221X	MG R	220Ω 1/10W J	*
R1302	NRSA02J-331X	MG R	330Ω 1/10W J	*
R1303-04	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1305-07	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1308	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
R1309	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1311	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R1312	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1314	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1316-18	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R1319	NRSA02J-184X	MG R	180kΩ 1/10W J	*
R1351	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1352	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1391	QRJ146J-180X	C R	18Ω 1/4W J	*
R1401	NRSA02J-103X	MG R	10kΩ 1/10W J	*

Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R1402	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1407	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R1408	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R1413	QRE121J-391Y	C R	390Ω 1/2W J	*
R1414	QRT029J-1R0	MF R	1.0Ω 2W J	*
R1416	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1418	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1419	NRSA02J-822X	MG R	8.2kΩ 1/10W J	*
R1421	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1422	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R1431	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1432	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R1433	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1434	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1501	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1503	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1504	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R1505	NRSA02J-822X	MG R	8.2kΩ 1/10W J	*
R1521	NRSA02J-621X	MG R	620Ω 1/10W J	*
R1522	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R1523	QRE121J-103Y	C R	10kΩ 1/2W J	*
R1524	QRL039J-122	OM R	1.2kΩ 3W J	*
R1525	QRL039J-152	OM R	1.5kΩ 3W J	*
Δ R1531	QRE121J-220Y	C R	22Ω 1/2W J	*
R1532	QRE121J-681Y	C R	680Ω 1/2W J	*
R1533	QRL039J-103	OM R	10kΩ 3W J	*
R1543	QRL039J-153	OM R	15kΩ 3W J	*
R1547-48	QRE121J-154Y	C R	150kΩ 1/2W J	*
R1553	NRSA02J-104X	MG R	100kΩ 1/10W J	*
Δ R1556	QRA14CF-7321Y	MF R	7.32kΩ 1/4W F	*
Δ R1557	QRA14CF-2741Y	MF R	2.74kΩ 1/4W F	*
R1558	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1560	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R1582	QRE121J-152Y	C R	1.5kΩ 1/2W J	*
R1583	QRE121J-123Y	C R	12kΩ 1/2W J	*
R1584	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1585	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1586	QRE121J-183Y	C R	18kΩ 1/2W J	*
R1587	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1588	QRL039J-100	OM R	10Ω 3W J	*
R1589	QRE141J-0R0Y	C R	0.0Ω 1/4W J	*
R1603	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1605	NRSA02J-821X	MG R	820Ω 1/10W J	*
R1607	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1609	NRSA02J-821X	MG R	820Ω 1/10W J	*
R1611	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1613	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R1620	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R1622	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R1626	NRSA02J-822X	MG R	8.2kΩ 1/10W J	*
R1631	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R1701	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R1702	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1703	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1704	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R1705	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1706	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R1707	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1708	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1709	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R1710	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1711	NRSA02J-124X	MG R	120kΩ 1/10W J	*
R1712	NRSA02J-184X	MG R	180kΩ 1/10W J	*
R1713	NRSA02J-102X	MG R	1kΩ 1/10W J	*

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R1714	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1715	NRSA02J-224X	MG R	220kΩ 1/10W J	*
R1716-17	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1718	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R1721	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1722	NRSA02J-561X	MG R	560Ω 1/10W J	*
R1724	NRSA02J-221X	MG R	220Ω 1/10W J	*
R1725	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1726	NRSA02J-221X	MG R	220Ω 1/10W J	*
R1727	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1728	NRSA02J-221X	MG R	220Ω 1/10W J	*
R1729	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1730	NRSA02J-221X	MG R	220Ω 1/10W J	*
R1731-32	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1734	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1735-36	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R1737	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R1738	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1740	NRSA02J-101X	MG R	100Ω 1/10W J	*
R1741	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1742	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1743	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
R1744	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1745	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
R1746	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1747	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
R1748-49	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1750-52	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1753	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1754-55	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R1756	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R1757	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1758	NRSA02J-105X	MG R	1MΩ 1/10W J	*
R1761	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1762	NRSA02J-153X	MG R	15kΩ 1/10W J	*
R1764	NRSA02J-105X	MG R	1MΩ 1/10W J	*
R1765	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R1766	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R1771-72	NRSA02J-221X	MG R	220Ω 1/10W J	*
R1781	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1784	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R1785	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1786	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1787	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1788	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R1789	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1790	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1791	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1792	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R1793-97	NRSA02J-561X	MG R	560Ω 1/10W J	*
R1798	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R1799	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1801-03	NRSA02J-221X	MG R	220Ω 1/10W J	*
R1811-13	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1815	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1816	NRSA02J-103X	MG R	10kΩ 1/10W J	*
△ R1901	QRF154K-3R3	UNF R	3.3 Ω 15W K	*
R1902	QRG039J-333	OM R	33kΩ 3W J	*
R1903	QRE121J-681Y	C R	680Ω 1/2W J	*
R1904-05	QRT029J-R15	MF R	0.15Ω 2W J	*
R1907-08	QRL029J-823	OM R	82kΩ 2W J	*
R1909	QRE121J-332Y	C R	3.3kΩ 1/2W J	*
R1910	QRF154J-680	UNF R	68 Ω 15W J	*
R1912	QRE121J-564Y	C R	560kΩ 1/2W J	*
R1913	QRN141J-183Y	C R	18kΩ 1/4W J	*
R1914	QRE121J-4R7Y	C R	4.7Ω 1/2W J	*
R1916	QRE121J-152Y	C R	1.5kΩ 1/2W J	*
R1917	QRE121J-103Y	C R	10kΩ 1/2W J	*

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R1918	QRE121J-102Y	C R	1kΩ 1/2W J	*
R1923	QRT039J-2R2	MF R	2.2Ω 3W J	*
R1924	QRL029J-221	OM R	220Ω 2W J	*
R1925	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R1932	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R1933	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1934	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R1941	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R1942	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R1943	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R1944	NRSA02J-393X	MG R	39kΩ 1/10W J	*
R1945	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R1946	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R1947	QRJ149J-821	C R	820Ω 1/4W J	*
R1948	QRK129J-150	C R	15Ω 1/2W J	*
R1951-52	QRT029J-1R0	MF R	1.0Ω 2W J	*
R1954	QRE121J-272Y	C R	2.7kΩ 1/2W J	*
R1955	QRE121J-473Y	C R	47kΩ 1/2W J	*
R1956	NRSA02J-223X	MG R	22kΩ 1/10W J	*
△ R1998	QRZ0057-825	C R	8.2MΩ 1W J	*

**CAPACITOR**

C1001	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1007	QETN1CM-477Z	E CAP.	470μF 16V M	*
C1008-09	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1010-11	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1101-02	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1104-05	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1111	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1112-14	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1116	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	*
C1117	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1118	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1119	NDC21HJ-681X	C CAP.	680pF 50V J	*
C1120	QETN1HM-474Z	E CAP.	0.47μF 50V M	*
C1123-24	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1161	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1163-64	NDC21HJ-470X	C CAP.	47pF 50V J	*
C1165-66	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1205	NDC21HJ-330X	C CAP.	33pF 50V J	*
C1207	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C1208	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C1209	QETN1CM-227Z	E CAP.	220μF 16V M	*
C1210	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1211	NDC21HJ-681X	C CAP.	680pF 50V J	*
C1212	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C1213	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1214	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C1215	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C1231	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1232	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1233	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1251	QFLC1HJ-473Z	M CAP.	0.047μF 50V J	*
C1288	QETN1CM-108Z	E CAP.	1000μF 16V M	*
C1290-92	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1293-95	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1296	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1298	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1299	QETN1CM-227Z	E CAP.	220μF 16V M	*
C1303	NDC21HJ-560X	C CAP.	56pF 50V J	*
C1304	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1305	NDC21HJ-120X	C CAP.	12pF 50V J	*
C1306	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1307	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1308-09	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C1311	QFLC1HJ-103Z	M CAP.	0.01μF 50V J	*

△ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1312	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C1313	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C1314	NDC21HJ-151X	C CAP.	150pF 50V J	*
C1315	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
C1320	NDC21HJ-330X	C CAP.	33pF 50V J	*
C1351	QFLC1HJ-473Z	M CAP.	0.047μF 50V J	*
C1352	QFLC1HJ-473Z	M CAP.	0.047μF 50V J	*
C1391	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1402	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1406	QFLC1HJ-103Z	M CAP.	0.01μF 50V J	*
C1407	QCS32HJ-100Z	C CAP.	10pF 500V J	*
C1410	QETN1VM-107Z	E CAP.	100μF 35V M	*
C1411	QETN1VM-477Z	E CAP.	470μF 35V M	*
C1412	QFLC2AK-563Z	M CAP.	0.056μF 100V K	*
C1413	QETN1EM-228	E CAP.	2200μF 25V M	*
C1414	QETN1HM-335Z	E CAP.	3.3μF 50V M	*
C1421	QETN1HM-476Z	E CAP.	47μF 50V M	*
C1422	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1425	QFN31HJ-152Z	M CAP.	1500pF 50V J	*
C1501	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1502-03	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1505-06	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1507	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1521	QCB32HK-151Z	C CAP.	150pF 500V K	*
C1522	QCB32HK-331Z	C CAP.	330pF 500V K	*
C1523	QETN2CM-105Z	E CAP.	1μF 160V M	*
△ C1531	QFZ0117-3001	MPP CAP.	3000pF1.4KVH±2.5%	*
△ C1532	QFZ0117-122Z	MPP CAP.	0.0122μF1.4KVH±2.5%	*
△ C1533	QFP32GJ-223	PP CAP.	0.022μF 400V J	*
△ C1534	QEHK2EM-225Z	E CAP.	2.2μF 250V M	*
△ C1535	QFZ0119-754	MPP CAP.	0.75μF 200V ±3%	*
C1536	QCB32HK-561Z	C CAP.	560pF 500V K	*
C1538	QEZ0420-107	E CAP.	100μF 160V M	*
C1541	QETN2EM-336	E CAP.	33μF 250V M	*
C1542	QETN1VM-108	E CAP.	1000μF 35V M	*
C1544	QETN1VM-107Z	E CAP.	100μF 35V M	*
C1545	QFLC2AJ-103Z	M CAP.	0.01μF 100V J	*
C1546	QFV71HJ-564Z	MF CAP.	0.56μF 50V J	*
C1548	QCS32HJ-221Z	C CAP.	220pF 500V J	*
C1549	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1551	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1578-79	QEM61HK-475Z	E CAP.	4.7μF 50V K	*
C1581	QFLC1HJ-103Z	M CAP.	0.01μF 50V J	*
C1582	QFLC1HJ-563Z	M CAP.	0.056μF 50V J	*
C1584	NCB21HK-473X	C CAP.	0.047μF 50V K	*
C1604	QENC1HM-474Z	BP E CAP.	0.47μF 50V M	*
C1607	QENC1HM-474Z	BP E CAP.	0.47μF 50V M	*
C1609	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1613	QETN1EM-108Z	E CAP.	1000μF 25V M	*
C1615	QETN1EM-108Z	E CAP.	1000μF 25V M	*
C1617	QETN1EM-108Z	E CAP.	1000μF 25V M	*
C1618	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	*
C1622	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1623-24	QENC1HM-474Z	BP E CAP.	0.47μF 50V M	*
C1631	QETN1HM-476Z	E CAP.	47μF 35V M	*
C1701	NDC21HJ-102X	C CAP.	1000pF 50V J	*
C1702	NCB21HK-822X	C CAP.	8200pF 50V K	*
C1703	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1704	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1705	NDC21HJ-471X	C CAP.	470pF 50V J	*
C1706	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C1707	NDC21HJ-180X	C CAP.	18pF 50V J	*
C1708	NDC21HJ-220X	C CAP.	22pF 50V J	*
C1709	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1710	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C1711	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1712-13	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1714	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*

△ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1715	NDC21HJ-150X	C CAP.	15pF 50V J	*
C1716	NDC21HJ-390X	C CAP.	39pF 50V J	*
C1717	NDC21HJ-151X	C CAP.	150pF 50V J	*
C1718	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
C1719	QETN1HM-106Z	E CAP.	10μF 50V M	*
C1720	NDC21HJ-151X	C CAP.	150pF 50V J	*
C1722	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1731	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1732	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1733	NCB21HJ-101X	C CAP.	100pF 50V J	*
C1734	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1735	QETN1AM-227Z	E CAP.	220μF 10V M	*
C1761	QETN1HM-105Z	E CAP.	1μF 50V M	*
C1762	NDC21HJ-221X	C CAP.	220pF 50V J	*
C1763	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1766	QENC1HM-474Z	BP E CAP.	0.47μF 50V M	*
C1771	QETN1EM-476Z	E CAP.	47μF 25V M	*
C1772	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1777	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C1779	NDC21HJ-100X	C CAP.	10pF 50V J	*
C1782	NDC21HJ-102X	C CAP.	1000pF 50V J	*
C1783	NCB21HK-222X	C CAP.	2200pF 50V K	*
C1784	NCB21HK-102X	C CAP.	1000pF 50V K	*
C1785-88	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
C1789	QCS31HJ-331Z	C CAP.	330pF 50V J	*
C1805	QETN1CM-227Z	E CAP.	220μF 16V M	*
C1806	NCB21HK-103X	C CAP.	0.01μF 50V K	*
△ C1811-13	NCB21HK-103X	C CAP.	0.01μF 50V K	*
△ C1904	QCZ9075-471	C CAP.	470pFAC250V M	*
△ C1905	QCZ9075-471	C CAP.	470pFAC250V M	*
△ C1907	QCZ9074-472	C CAP.	4700pFAC400V M	*
△ C1910	QEZ0371-397	E CAP.	390pF 400V M	*
C1911	QETN1VM-477Z	E CAP.	470μF 35V M	*
C1912	QCS31HJ-471Z	C CAP.	470pF 50V J	*
C1913	QCZ0325-102	C CAP.	1000pF 2000V K	*
C1914	QCZ0122-391	C CAP.	390pF 2000V K	*
C1915	QCB32HK-103	C CAP.	0.01μF 500V K	*
C1916	QCZ0325-561	C CAP.	560pF 2000V K	*
C1918	QFN31HJ-102Z	M CAP.	1000pF 50V J	*
C1919	QFN31HJ-152Z	M CAP.	1500pF 50V J	*
C1920	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C1921	QCZ0116-152Z	C CAP.	1500pF 1000V K	*
C1922	QCZ0132-152Z	C CAP.	1500pF 500V K	*
C1923	QCB32HK-561Z	C CAP.	560pF 500V K	*
△ C1924	QEZ0420-107	E CAP.	100μF 160V M	*
C1926	QETN1CM-108Z	E CAP.	1000μF 16V M	*
C1927	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1928	QETN1EM-108Z	E CAP.	1000μF 25V M	*
C1938	NCB21HK-473X	C CAP.	0.047μF 50V K	*
C1951	QETN1CM-107Z	E CAP.	100μF 16V M	*
C1952	QETN1HM-476Z	E CAP.	47μF 50V M	*
△ C1981	QCZ9078-102	C CAP.	1000pFAC250V M	*
△ C1982	QCZ9078-102	C CAP.	1000pFAC250V M	*
△ C1990	QCZ9075-222	C CAP.	2200pFAC250V M	*

TRANSFORMER

T1111	CEL001-209J3	C.WAVE TRANSF.	*
T1521	CE42034-002	H.DRIVE TRANSF.	*
△ T1522	QQH0025-001	FLYBACK TRANSF.	*
△ T1901	CETS097-001J8	SW TRANSF.	*

COIL

L1001	QQL03BJ-150Z	COIL	15μH	*
L1101	QQL014-R22	PEAKING COIL	0.22μH	*
L1131	QQL03BJ-220Z	COIL	22μH	*



△ Symbol No.	Part No.	Part Name	Description	Local
<b>COIL</b>				
L1161	QQL03BJ-220Z	COIL	22μH	*
L1202	QQL03BJ-560Z	COIL	56μH	*
L1205	QQL03BJ-4R7Z	COIL	4.7μH	*
L1301	QQL03BJ-150Z	COIL	15μH	*
L1501	QQL03BJ-4R7Z	COIL	4.7μH	*
△ L1531	CE41663-00B	LINEARITY COIL		*
△ L1532	QQLZ016-821	CHOKE COIL		*
△ L1591	QQLZ018-430	HEATER CHOKE		*
L1701-02	QQL03BJ-4R7Z	COIL	4.7μH	*
L1704	QQL39BK-8R2Z	COIL	8.2μH	*
L1771	QQL03BJ-4R7Z	COIL	4.7μH	*
L1921	QQL42AK-820Z	COIL	82μH	*
L1922	QQL42AK-220Z	COIL	22μH	*

<b>DIODE</b>				
D1001	MTZJ33A-T2	ZENER DIODE		*
D1201	1SS133-T2	SI. DIODE		*
D1211-12	1SS133-T2	SI. DIODE		*
D1391	MTZJ8.2B-T2	ZENER DIODE		*
D1401	1N4003-T2	SI. DIODE		*
D1402	MTZJ75-T2	ZENER DIODE		*
△ D1531	RH3G-F1	SI. DIODE		*
△ D1532	RU3AM-LFC4	SI. DIODE		*
D1533	RGP10J-5025-T3	SI. DIODE		*
D1540	MTZJ36A-T2	ZENER DIODE		*
D1541	RH15-T3	SI. DIODE		*
D1542	RGP10J-5025-T3	SI. DIODE		*
D1543	RH15-T3	SI. DIODE		*
D1544	1SS81-T2	SI. DIODE		*
D1546	1SR124-400A-T2	SI. DIODE		*
D1549	MTZJ9.1B-T2	ZENER DIODE		*
D1551	MTZJ7.55-T2	ZENER DIODE		*
D1552	1SS133-T2	SI. DIODE		*
D1631-34	1SS133-T2	SI. DIODE		*
D1701-04	1SS133-T2	SI. DIODE		*
D1706-08	1SS133-T2	SI. DIODE		*
D1710	MTZJ5.6A-T2	ZENER DIODE		*
D1712-13	1SS133-T2	SI. DIODE		*
D1771-72	MTZJ6.2B-T2	ZENER DIODE		*
D1783	1SS133-T2	SI. DIODE		*
D1804	MTZJ15A-T2	ZENER DIODE		*
△ D1901	D35BA60	DIODE BRIDGE		*
△ D1902	RGP10J-5025-T3	SI. DIODE		*
D1903-04	1SS133-T2	SI. DIODE		*
D1905	RU1C-LFC4	SI. DIODE		*
D1906	MTZJ6.8A-T2	ZENER DIODE		*
D1910	RGP10J-5025-T3	SI. DIODE		*
D1911	1SS133-T2	SI. DIODE		*
D1912	MTZJ15A-T2	ZENER DIODE		*
D1913	RGP10J-5025-T3	SI. DIODE		*
D1914	MTZJ15A-T2	ZENER DIODE		*
D1921	RU30A-F1	SI. DIODE		*
D1922-23	RU3YX-LFC4	SI. DIODE		*
D1931	1SS133-T2	SI. DIODE		*
D1941	MTZJ9.1C-T2	ZENER DIODE		*
D1951	MTZJ7.55-T2	ZENER DIODE		*
D1952	1SS133-T2	SI. DIODE		*

<b>TRANSISTOR</b>				
Q1101	2SC5083/L-P/-T	SI. TRANSISTOR		*
Q1131	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1161	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1201	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1202	2SA1037AK/QR/-X	SI. TRANSISTOR		*
Q1211-12	2SC2412K/QR/-X	SI. TRANSISTOR		*

△ Symbol No.	Part No.	Part Name	Description	Local
<b>TRANSISTOR</b>				
Q1301-02	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1303-05	2SA1037AK/QR/-X	SI. TRANSISTOR		*
Q1351	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1521	BSN274	F.E.T.		*
△ Q1531	2SD2539-LB	SI. TRANSISTOR	H.OUT	*
△ Q1542	2SC2785/JH/-T	SI. TRANSISTOR		*
Q1551	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1553	2SD1408/OY/-LB	SI. TRANSISTOR		*
Q1601	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1603	DTC124EKA-X	DIGI. TRANSISTOR		*
Q1604-05	DTC323TK-X	DIGI. TRANSISTOR		*
Q1631	2SA1037AK/QR/-X	SI. TRANSISTOR		*
Q1701-02	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1703	DTC124EKA-X	DIGI. TRANSISTOR		*
Q1704	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1781-83	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1911	2SA933AS/QR/-T	SI. TRANSISTOR		*
Q1923	2SA1020/Y/-T	SI. TRANSISTOR		*
Q1924	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1941	DTC124EKA-X	DIGI. TRANSISTOR		*
Q1942-43	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q1951	2SA949/Y/Z1-T	SI. TRANSISTOR		*

<b>IC</b>				
IC1001	AN78L05-T	I.C. (MONO-ANA)		*
IC1101	MS2342SP	I.C. (MONO-ANA)		*
IC1201	TB1230N	I.C. (DIGI-OTHER)		*
IC1291	AN78N05	I.C. (M)		*
IC1292	AN78L05-T	I.C. (MONO-ANA)		*
IC1293	BA17809T	I.C. (MONO-ANA)		*
IC1294	AN78L09	I.C. (MONO-ANA)		*
IC1301	TDA8601	I.C. (MONO-ANA)		*
△ IC1401	LA7841	I.C. (MONO-ANA)		*
IC1402	AN78N12	I.C. (MONO-ANA)		*
△ IC1601	LA4485	I.C. (MONO-ANA)		*
IC1701	M37271MF-221SP	I.C. (MICRO-COMP)		*
IC1702	AT24C04-T3885	I.C.	(SERVICE)	*
IC1703	L78LR05E-MA	I.C. (MONO-ANA)		*
△ IC1901	STR-F6655	I.C. (HYBRID)		*
△ IC1941	SE135N	I.C. (HYBRID)		*

<b>OTHERS</b>				
CF1001	FTP47.25MF	CERAMIC FILTER		*
CF1131	QAX0339-001	CERAMIC FILTER		*
CF1161	SFSH4.5MCB	CERAMIC FILTER		*
△ CP1921	ICP-N75-Y	I.C. PROTECT		*
△ CP1922	ICP-N75-Y	I.C. PROTECT		*
△ FR1542	QRZ9021-1R2	F R	1.2Ω 1W J	*
△ FR1544	QRZ9017-4R7	F R	4.7Ω 1/4W J	*
△ FR1545	QRE121J-682Y	C R	6.8kΩ 1/2W J	*
K1401	QQR0582-001Z	BEADS CORE		*
K1901-03	QQR0582-001Z	BEADS CORE		*
K1921	QQR0621-001Z	BEADS CORE		*
K1922	QQR0582-001Z	BEADS CORE		*
K1923	QQR0621-001Z	BEADS CORE		*
△ PC1901	TLP621(GR)-LF2	I.C. (PH.COUPLER)		*
SF1101	QAX0324-002	SAW FILTER		*
△ TH1901	QAD0101-9R0	P.THERMISTOR		*
△ TH1902	QAD0101-9R0	P.THERMISTOR		*
△ TU1001	CEEM270-A02	TUNER		*
W1018-21	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1412	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1432	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1441	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1448-49	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1452	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*

△ Symbol No.	Part No.	Part Name	Description	Local
OTHERS				
W1456-59	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1461	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1471	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1474	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1477	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1489-90	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1502	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1532	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1536	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1552	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1557-58	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1564	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1566	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1571	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1585	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1592	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1594-95	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1615	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1618-20	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1624	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1626	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1644	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1659-60	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1675	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1680	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1690	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1692-93	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1696-97	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1707	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1715-16	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1719	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1723-24	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W1730	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
X1301	QAX0305-001Z	CRYSTAL		*
X1701	QAX0397-001Z	CRYSTAL		*
Y1003	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
Y1311	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
Y1601	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
Y1703	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*

CRT SOCKET P.W. BOARD ASS'Y (SGB-3007A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R3301-06	NRSA02J-151X	MG R	150Ω 1/10W J	*
R3307-09	NRSA02J-820X	MG R	82Ω 1/10W J	*
R3310-15	QRG029J-153	OM R	15kΩ 2W J	*
R3316-18	NRSA02J-151X	MG R	150Ω 1/10W J	*
R3319	NRSA02J-101X	MG R	100Ω 1/10W J	*
R3325-27	QRZ0111-152	C R	15 Ω 1/2W K	*
R3341-43	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
R3351	NRSA02J-221X	MG R	220Ω 1/10W J	*
R3352	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
R3354	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
R3363	QRC122K-474	COMP.R	470kΩ 1/2W K	*
CAPACITOR				
C3301-03	NDC21HJ-391X	C CAP.	390pF 50V J	*
C3311	QETN1CM-337Z	E CAP.	330μF 16V M	*
C3321	QETN2EM-105Z	E CAP.	1μF 250V M	*
C3331-33	NDC21HJ-101X	C CAP.	100pF 50V J	*
C3351	QETN1CM-107Z	E CAP.	100μF 16V M	*
△ C3363	QCZ0121-102	C CAP.	1000pF 3000V Z	*
COIL				
L3304	QQL39BK-470Z	COIL	47μH	*
DIODE				
D3301-03	1SS133-T2	SI.DIODE		*
D3351	1SS133-T2	SI.DIODE		*
D3353	MTZJ5.1B-T2	ZENER DIODE		*
D3354-56	1SS133-T2	SI.DIODE		*
TRANSISTOR				
Q3301-03	2SC5083/L-P/-T	SI.TRANSISTOR		*
Q3304-06	2SC4544-LB	SI.TRANSISTOR		*
Q3351	2SA1037AK/QR/-X	SI.TRANSISTOR		*
Q3352	2SC2412K/QR/-X	SI.TRANSISTOR		*
OTHERS				
△ SC3001	CE42535-001J1	C.R.T.SOCKET		*

# FRONT CONTROL P.W. BOARD ASS'Y (SGB-4005A-M2)

Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R4701	QRE121J-103Y	C R	10kΩ 1/2W J	*
R4702	QRE121J-562Y	C R	5.6kΩ 1/2W J	*
R4703-04	QRE121J-103Y	C R	10kΩ 1/2W J	*
R4705	QRE121J-562Y	C R	5.6kΩ 1/2W J	*
R4706	QRE121J-103Y	C R	10kΩ 1/2W J	*
R4707-08	QRE121J-223Y	C R	22kΩ 1/2W J	*
R4709	QRE121J-561Y	C R	560Ω 1/2W J	*
R4710-11	QRE121J-223Y	C R	22kΩ 1/2W J	*
R4712	QRE121J-561Y	C R	560Ω 1/2W J	*
R4713	QRE121J-103Y	C R	10kΩ 1/2W J	*
<b>CAPACITOR</b>				
C4701	QETN1EM-476Z	E CAP.	47μF 25V M	*
C4702	QCB32HK-561Z	C CAP.	560pF 500V K	*
<b>COIL</b>				
L4701	QQL03BJ-560Z	COIL	56μH	*
<b>DIODE</b>				
D4702	SPR-39MVMF	L.E.D.		*
<b>TRANSISTOR</b>				
Q4701	2SA933AS/QR/-T	SI. TRANSISTOR		*
Q4702	2SC1740S/QR/-T	SI. TRANSISTOR		*
<b>IC</b>				
IC4701	PIC-21043SR	IFR DETECT UNIT		*
<b>OTHERS</b>				
S4701	QSP1A11-C19Z	PUSH SWITCH	(VOL +)	*
S4702	QSP1A11-C19Z	PUSH SWITCH	(VOL -)	*
S4703	QSP1A11-C19Z	PUSH SWITCH	(CH +)	*
S4704	QSP1A11-C19Z	PUSH SWITCH	(CH -)	*
S4705	QSP1A11-C19Z	PUSH SWITCH	(MENU)	*
Δ S4901	QSP4K21-C01	PUSH SWITCH	(POWER)	*

# AV SELECTOR P.W. BOARD ASS'Y (SGB-8008A-M2)

Symbol No.	Part No.	Part Name	Description	Local
<b>VARIABLE RESISTOR</b>				
R8129	QVP0006-473Z	V R(	47kΩ	
<b>RESISTOR</b>				
R8001	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R8002-04	NRSA02J-561X	MG R	560Ω 1/10W J	*
R8005	QRK129J-5R6	C R	5.6Ω 1/2W J	*
R8006	NRSA02J-820X	MG R	82Ω 1/10W J	*
R8101	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R8102	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
R8103	QRE121J-101Y	C R	100Ω 1/2W J	*
R8104	NRSA02J-180X	MG R	18Ω 1/10W J	*
R8105	NRSA02J-270X	MG R	27Ω 1/10W J	*
R8113	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
R8114	NRSA02J-334X	MG R	330kΩ 1/10W J	*
R8116	NRVA02D-221X	MF R	220Ω 1/10W D	*
R8118-19	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R8120	NRSA02J-101X	MG R	100Ω 1/10W J	*
R8121	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R8122	NRSA02J-271X	MG R	270Ω 1/10W J	*
R8123	NRSA02J-181X	MG R	180Ω 1/10W J	*
R8125	NRSA02J-751X	MG R	750Ω 1/10W J	*
R8126	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8127	NRSA02J-330X	MG R	33Ω 1/10W J	*
R8128	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8201-03	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8204	NRSA02J-681X	MG R	680Ω 1/10W J	*
R8205	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
R8207	NRSA02J-391X	MG R	390Ω 1/10W J	*
R8208	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8209	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R8210	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R8211	NRSA02J-821X	MG R	820Ω 1/10W J	*
R8221-22	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R8223	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
R8224	NRSA02J-821X	MG R	820Ω 1/10W J	*
R8225-27	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R8228	NRSA02J-153X	MG R	15kΩ 1/10W J	*
R8251-53	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8254	NRSA02J-681X	MG R	680Ω 1/10W J	*
R8255	NRSA02J-561X	MG R	560Ω 1/10W J	*
R8256	NRSA02J-681X	MG R	680Ω 1/10W J	*
R8257	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8258	NRSA02J-391X	MG R	390Ω 1/10W J	*
R8260	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R8261	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R8262	NRSA02J-821X	MG R	820Ω 1/10W J	*
R8292	QRL029J-150	OM R	15Ω 2W J	*
R8301	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R8302	NRSA02J-391X	MG R	390Ω 1/10W J	*
R8303	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8304	NRSA02J-681X	MG R	680Ω 1/10W J	*
R8305	NRSA02J-561X	MG R	560Ω 1/10W J	*
R8306	NRSA02J-681X	MG R	680Ω 1/10W J	*
R8307	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8308	NRSA02J-391X	MG R	390Ω 1/10W J	*
R8310	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R8311	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R8312	NRSA02J-821X	MG R	820Ω 1/10W J	*
R8351	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R8352	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R8353	NRSA02J-221X	MG R	220Ω 1/10W J	*
R8354	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
R8355	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8356	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*

Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R8357	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R8358	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R8359	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
R8651	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8652	NRSA02J-561X	MG R	560Ω 1/10W J	*
R8653	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
R8654	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R8655	NRSA02J-332X	MG R	3.3kΩ 1/10W J	*
R8656	NRVA02D-152X	MF R	1.5kΩ 1/10W D	*
R8658	NRVA02D-153X	MF R	15kΩ 1/10W D	*
R8660	NRSA02J-512X	MG R	5.1kΩ 1/10W J	*
R8661	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R8662-65	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R8666-67	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R8668	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R8669-70	NRSA02J-221X	MG R	220Ω 1/10W J	*
R8673-74	NRSA02J-823X	MG R	82kΩ 1/10W J	*
R8675-76	NRSA02J-181X	MG R	180Ω 1/10W J	*
R8677	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R8678-81	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R8682	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R8685-88	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R8801	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R8803	NRSA02J-750X	MG R	75Ω 1/10W J	*
R8804	NRSA02J-221X	MG R	220Ω 1/10W J	*
R8805	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R8807	NRSA02J-750X	MG R	75Ω 1/10W J	*
R8808	NRSA02J-221X	MG R	220Ω 1/10W J	*
R8809	NRSA02J-563X	MG R	56kΩ 1/10W J	*
R8811	NRSA02J-750X	MG R	75Ω 1/10W J	*
R8812	NRSA02J-221X	MG R	220Ω 1/10W J	*
R8813	NRSA02J-823X	MG R	82kΩ 1/10W J	*
R8814	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8815	NRSA02J-823X	MG R	82kΩ 1/10W J	*
R8816	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8817	NRSA02J-750X	MG R	75Ω 1/10W J	*
R8818	NRSA02J-221X	MG R	220Ω 1/10W J	*
R8819	NRSA02J-823X	MG R	82kΩ 1/10W J	*
R8820	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8821	NRSA02J-823X	MG R	82kΩ 1/10W J	*
R8822	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8831-33	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
R8834	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8835-37	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
<b>CAPACITOR</b>				
C8001	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C8004	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8005	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8006	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8007	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8008-09	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8101-04	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8105	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8107	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8108	QFV71HJ-474Z	MF CAP.	0.47μF 50V J	*
C8109	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8110-11	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8112	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8113-14	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	*
C8115	NCS21HJ-101X	C CAP.	100pF 50V J	*
C8117	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8118	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8119	QETN1HM-474Z	E CAP.	0.47μF 50V M	*
C8120	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8201-02	QETN1CM-107Z	E CAP.	100μF 16V M	*

Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C8204	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8205	QENC1HM-474Z	BP E CAP.	0.47μF 50V M	*
C8221-22	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8223	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8224-25	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8228	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8229	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8230	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8231	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8232	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8234	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8235	NDC21HJ-181X	C CAP.	180pF 50V J	*
C8236-39	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8240	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8241	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8251	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8252	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8253	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8255-56	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8291-92	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8293	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8295	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8296	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8301	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8303-04	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8351	NDC21HJ-221X	C CAP.	220pF 50V J	*
C8352	NDC21HJ-560X	C CAP.	56pF 50V J	*
C8353	NDC21HJ-221X	C CAP.	220pF 50V J	*
C8354	NDC21HJ-121X	C CAP.	120pF 50V J	*
C8651	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8652	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8653	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8654	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C8655	QENC1HM-475Z	BP E CAP.	4.7μF 50V M	*
C8656	QENC1HM-105Z	BP E CAP.	1μF 50V M	*
C8657	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C8658	NCB21HK-473X	C CAP.	0.047μF 50V K	*
C8659	QETN1HM-474Z	E CAP.	0.47μF 50V M	*
C8660-61	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C8662	QBTC1CK-335Z	TAN. CAP.	3.3μF 16V K	*
C8663	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8664	QBTC1CK-106Z	TAN. CAP.	10μF 16V K	*
C8665-66	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8667	QETN1HM-336Z	E CAP.	33μF 50V M	*
C8668	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8669-70	QENC1HM-105Z	BP E CAP.	1μF 50V M	*
C8671	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C8672	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8673	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C8674	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C8675	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8676	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C8677	NCB21HK-223X	C CAP.	0.022μF 50V K	*
C8679	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8680	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8682-83	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C8801-03	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8804-05	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8806	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8807-08	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8821-31	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8835-36	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8837	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8838-39	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8840	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8841	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8842	NCB21HK-103X	C CAP.	0.01μF 50V K	*

△ Symbol No. Part No. Part Name Description Local

**TRANSFORMER**

T8201	CE42697-001	LOWPASS FILTER		*
T8251	CE42697-001	LOWPASS FILTER		*
T8301	CE42697-001	LOWPASS FILTER		*

**COIL**

L8001	QQL03BJ-150Z	COIL	15μH	*
L8101	QQLZ014-R22	PEAKING COIL	0.22μH	*
L8102	QQL03BJ-5R6Z	COIL	5.6μH	*
L8103	CE42452-003	COIL		*
L8104	QQL39BK-220Z	COIL	22μH	*
L8222-24	QQL03BJ-220Z	COIL	22μH	*
L8251	QQL03BJ-220Z	COIL	22μH	*
L8351	QQL03BJ-330Z	COIL	33μH	*

**DIODE**

D8801-08	MTZJ9.1C-T2	ZENER DIODE		*
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**TRANSISTOR**

Q8101	2SC5083/L-P/-T	SI. TRANSISTOR		*
Q8111	2SA1037AK/QR/-X	SI. TRANSISTOR		*
Q8201-03	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q8251	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q8252	2SA1037AK/QR/-X	SI. TRANSISTOR		*
Q8253-54	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q8301	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q8302	2SA1037AK/QR/-X	SI. TRANSISTOR		*
Q8303-04	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q8351-52	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q8651-54	DTC323TK-X	DIGI. TRANSISTOR		*

**IC**

IC8001	BA17805T	I.C.(MONO-ANA)		*
IC8101	LA7583	I.C.(MONO-ANA)		*
IC8201	TC9090AN	I.C.(DIGI-MOS)		*
IC8291	AN78N05	I.C.(M)		*
IC8292	BA17809T	I.C.(MONO-ANA)		*
IC8651	UPC1851ACU	I.C.(MONO-ANA)		*
IC8661	BA15218N	I.C.(MONO-ANA)		*
IC8801	CXA1545AS	I.C.(MONO-ANA)		*

**OTHERS**

	CM36337-A01-H	SHIELD COVER		*
	QRE141J-OR0Y	C R	0.0Ω 1/4W J	*
CF8102	FCR5.71M2SF3	CER. RESONATOR		*
CF8103	CE41505-001	CERAMIC FILTER		*
J8801	QMCC004-C01	MINI DIN JACK		*
J8802	QNN0099-001	PIN JACK		*
SF8101	QAX0324-002	SAW FILTER		*
△ TU8001	CEEM270-A02	TUNER		*

**FRONT AV JACK P.W. BOARD ASS'Y (SGB-8303A-M2)**

△ Symbol No. Part No. Part Name Description Local

**RESISTOR**

R0101	NRSA02J-750X	MG R	75Ω 1/10W J	*
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**OTHERS**

J0001	CEMN058-001	PIN JACK		*
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**LINE FILTER P.W. BOARD ASS'Y (SGB-9104A-M2)**

△ Symbol No. Part No. Part Name Description Local

**CAPACITOR**

△ C9901	QFZ9040-104	MF CAP.	0.1μFAC400V M	*
△ C9902	QFZ9040-473	MF CAP.	0.047μFAC400V M	*
△ C9903	QFZ9040-104	MF CAP.	0.1μFAC400V M	*

**OTHERS**

△ F9901	QMF51E2-3R15J4	FUSE	3.15 A	*
FC9901-02	CEMG002-001Z	FUSE CLIP		*
△ LF9901	CELF001-001J1	LINE FILTER		*
△ LF9902	CE41890-003J1	LINE FILTER		*
△ VA9901	ERZV10V621CS	VARISTOR		*

**PIP P.W. BOARD ASS'Y (SGB0P002A-M2)**

△ Symbol No. Part No. Part Name Description Local

**RESISTOR**

R0101	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0102	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0104	NRSA02J-OR0X	MG R	0.0Ω 1/10W J	*
R0105	NRSA02J-104X	MG R	100kΩ 1/10W J	*
R0106-07	NRSA02J-OR0X	MG R	0.0Ω 1/10W J	*
R0108	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0109	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R0110	NRSA02J-224X	MG R	220kΩ 1/10W J	*
R0112	NRSA02J-OR0X	MG R	0.0Ω 1/10W J	*
R0113-14	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0115	NRSA02J-822X	MG R	8.2kΩ 1/10W J	*
R0117	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0118	NRSA02J-OR0X	MG R	0.0Ω 1/10W J	*
R0120	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R0121	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0152-53	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0161	NRSA02J-OR0X	MG R	0.0Ω 1/10W J	*
R0162	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R0163	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0164	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0166-67	NRSA02J-OR0X	MG R	0.0Ω 1/10W J	*
R0169	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R0171	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
R0172	NRSA02J-OR0X	MG R	0.0Ω 1/10W J	*
R0173	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0174	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*

△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R0175	NRSA02J-681X	MG R	680Ω 1/10W J	*
R0176	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R0177	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0178	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R0179	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0180	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R0181	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0182	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0201-02	NRSA02J-181X	MG R	180Ω 1/10W J	*
R0203	NRSA02J-080X	MG R	0.0Ω 1/10W J	*
R0205	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0206	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0207	NRSA02J-332X	MG R	3.3kΩ 1/10W J	*
R0208	NRSA02J-105X	MG R	1MΩ 1/10W J	*
R0209	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0210	NRSA02J-471X	MG R	470Ω 1/10W J	*
R0211	NRSA02J-153X	MG R	15kΩ 1/10W J	*
R0212	NRSA02J-122X	MG R	1.2kΩ 1/10W J	*
R0213	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0214	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
R0215	NRSA02J-105X	MG R	1MΩ 1/10W J	*
R0216	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R0217-18	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R0220-22	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
R0223	NRSA02J-101X	MG R	100Ω 1/10W J	*
R0224	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R0226	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
R0227-30	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R0231-32	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R0233	NRSA02J-183X	MG R	18kΩ 1/10W J	*
CAPACITOR				
R0235	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
C0101	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0102	QETN1CM-1072	E CAP.	100μF 16V M	*
C0103-05	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0106	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0110	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C0111	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0112	QETN1CM-1072	E CAP.	100μF 16V M	*
C0113-18	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0119	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C0120	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C0121	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C0122-24	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0125	QETN1HM-476Z	E CAP.	47μF 50V M	*
C0126	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0127	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C0128	NDC21HJ-120X	C CAP.	12pF 50V J	*
C0129	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0130	QETN1CM-1072	E CAP.	100μF 16V M	*
C0131	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C0132	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C0133	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C0135	QETN1HM-105Z	E CAP.	1μF 50V M	*
C0136	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C0137	QETN1HM-105Z	E CAP.	1μF 50V M	*
C0138	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*
C0151	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0152-53	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0154	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0156	NCB21HK-473X	C CAP.	0.047μF 50V K	*
C0161	NDC21HJ-221X	C CAP.	220pF 50V J	*
C0162	QFN31HJ-102Z	M CAP.	1000pF 50V J	*
C0163	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0173	NDC21HJ-220X	C CAP.	22pF 50V J	*

△ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C0174	NDC21HJ-101X	C CAP.	100pF 50V J	*
C0174	NDC21HJ-101X	C CAP.	100pF 50V J	*
C0175-77	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C0201	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0202	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0203	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0204-05	QETN1HM-106Z	E CAP.	10μF 50V M	*
C0206	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0210-11	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0212	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C0213	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C0214	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C0215	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C0216	NCB21HK-102X	C CAP.	1000pF 50V K	*
C0219	QETN1HM-106Z	E CAP.	10μF 50V M	*
C0220	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0221-26	NDC21HJ-101X	C CAP.	100pF 50V J	*
C0227	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0228	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0229-30	NDC21HJ-101X	C CAP.	100pF 50V J	*
C0231-39	NDC21HJ-471X	C CAP.	470pF 50V J	*
C0241	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0242	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0243	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0244-47	NDC21HJ-470X	C CAP.	47pF 50V J	*
C0248	QETN1HM-105Z	E CAP.	1μF 50V M	*
C0249	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0250-51	NDC21HJ-681X	C CAP.	680pF 50V J	*
C0252	NDC21HJ-101X	C CAP.	100pF 50V J	*
C0253-54	NCF21HZ-103X	C CAP.	0.01μF 50V Z	*
C0255	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0256-58	QENC1CM-106Z	BP E CAP.	10μF 16V M	*
C0259	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0260	QENC1CM-475Z	BP E CAP.	4.7μF 50V M	*
C0261	QETN1EM-476Z	E CAP.	47μF 25V M	*
C0262	QENC1CM-475Z	BP E CAP.	4.7μF 50V M	*
C0263-64	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C0265	QFLC1HJ-333Z	M CAP.	0.033μF 50V J	*
C0266	QENC1HM-475Z	BP E CAP.	4.7μF 50V M	*
COIL				
L0101-05	QQL03BJ-4R7Z	COIL	4.7μH	*
L0172	QQL03BJ-820Z	COIL	82μH	*
L0173	QQL03BJ-150Z	COIL	15μH	*
DIODE				
D0201	1SS133-T2	SI.DIODE		*
TRANSISTOR				
Q0151	2SC2412K/QR/-X	SI.TRANSISTOR		*
Q0161	2SC2412K/QR/-X	SI.TRANSISTOR		*
Q0172	2SC2412K/QR/-X	SI.TRANSISTOR		*
Q0173-75	2SA1037AK/QR/-X	SI.TRANSISTOR		*
Q0202-06	2SC2412K/QR/-X	SI.TRANSISTOR		*
IC				
IC0101	TB1230N	I.C.(DIGI-OTHER)		*
IC0102	TC4538BP/N/	I C		*
IC0151	BA17805T	I.C.(MONO-ANA)		*
IC0152	BA17809T	I.C.(MONO-ANA)		*
IC0201	LC74411N	I.C.(DIGI-MOS)		*
IC0202	MN1381/Q/-T	I.C.(MONO-ANA)		*
IC0203-04	BA7655AF-X	I.C.(MONO-ANA)		*

**SIDE PIN P.W. BOARD ASS'Y (SGB-8404A-M2)**

△ Symbol No.	Part No.	Part Name	Description	Local
<b>OTHERS</b>				
CN0003	QGB1505K1-35	PLUG		*
K0201	CE42136-A01Y	BEADS CORE		
W0019	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0022-24	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0026	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0028	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0032	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0035-36	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0043-44	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0046	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0051-55	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0063-65	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0067-72	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0074	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0077-82	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0084	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0086	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0089-90	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
W0094-95	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
X0101	QAX0305-001Z	CRYSTAL		*
Y0102	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
Y0104	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
Y0201	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R8461	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8462	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R8463-64	NRSA02J-221X	MG R	220Ω 1/10W J	*
R8465	NRSA02J-331X	MG R	330Ω 1/10W J	*
△ R8466	QRJ146J-2R2X	C R	2.2Ω 1/4W J	*
R8467	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R8468	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8469	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R8470	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
R8471	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8472-73	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R8474	QRA14CF-2491Y	MF R	2.49kΩ 1/4W F	*
R8475	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
R8477	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
R8478	NRSA02J-221X	MG R	220Ω 1/10W J	*

**CAPACITOR**

C8451	NDC21HJ-680X	C CAP.	68pF 50V J	*
C8452	NDC21HJ-121X	C CAP.	120pF 50V J	*
C8462	QFP31HG-333	PP CAP.	0.033μF 50V G	*
C8463	QEM61EK-225Z	E CAP.	2.2μF 25V K	*
C8464	QFV71HJ-184Z	MF CAP.	0.18μF 50V J	*
C8465	QFLC1HJ-823Z	M CAP.	0.082μF 50V J	*
C8466	QETN1CM-108Z	E CAP.	1000μF 16V M	*
C8467	QFLC1HJ-104Z	M CAP.	0.1μF 50V J	*

**DIODE**

D8461	MTZJ3.9B-T2	ZENER DIODE		*
D8462	MTZJ12C-T2	ZENER DIODE		*

**TRANSISTOR**

Q8461	2SC2412K/QR/-X	SI. TRANSISTOR		*
Q8463-64	2SC2412K/QR/-X	SI. TRANSISTOR		*

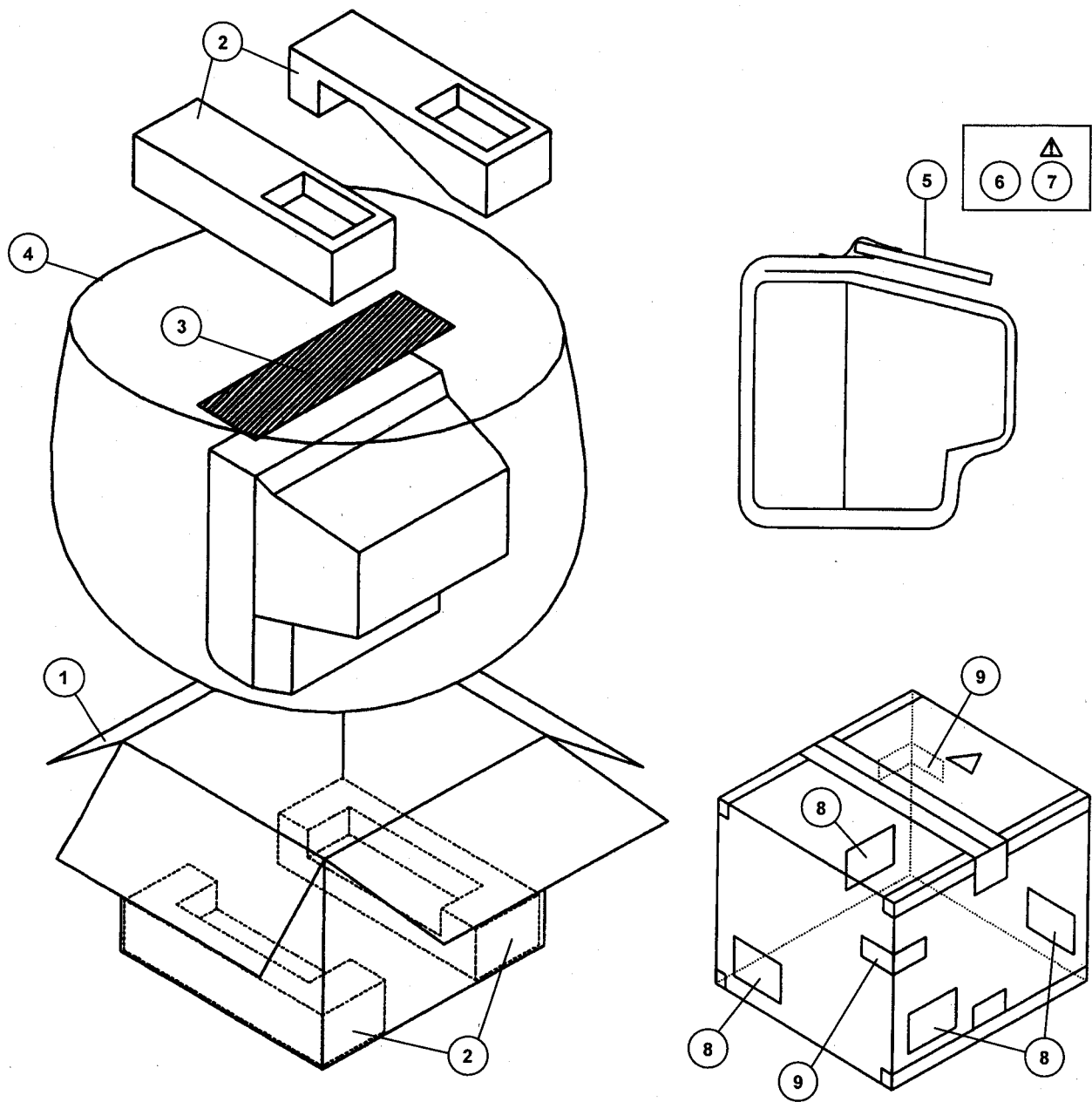
**IC**

IC8461	TA8859CP	I.C. (MONO-ANA)		
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**OTHERS**

CN8004	QGB2501K2-10	JL PLUG		*
W8001	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*
Y8001	NRSA02J-OROX	MG R	0.0Ω 1/10W J	*

PACKING

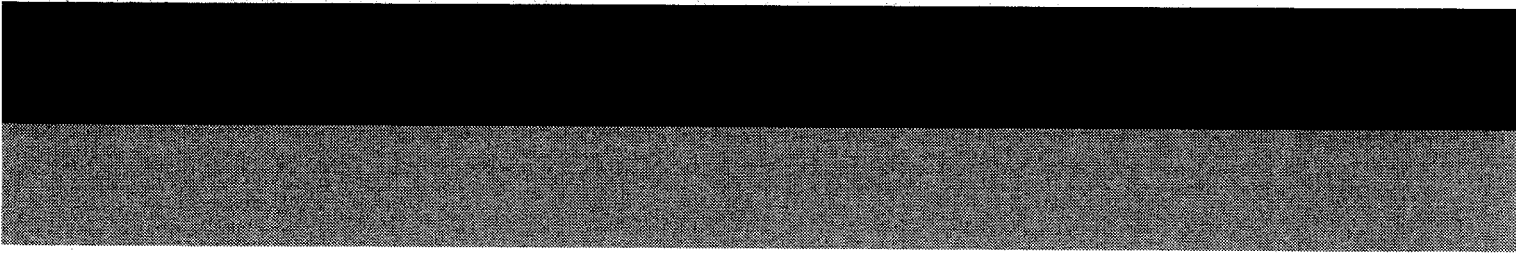


PACKING PARTS LIST

△ Ref.No.	Part No.	Part Name	Description	Local
1	CP11499-034-A	PACKING CASE		*
2	CP11387-00D-A	PACKING CUSHION	4pcs in 1set	*
3	CP30055-A02-A	TOP COVER		*
4	CP30056-004-A	POLY BAG		*
5	QPA02503505	POLY BAG		*
6	RM-C735-1A	REMOCON UNIT		*
△ 7	LCT0646-001A-A	INST BOOK		*
8	CM36654-004-A	INCH SIZE LABEL	4pcs in 1set	*
9	CM36616-001-A	CORNER LABEL	2pcs in 1set	*







# JVC

VICTOR COMPANY OF JAPAN, LIMITED  
TELEVISION RECEIVER DIVISION 1106 Heta, Iwai-city, Ibaraki-prefecture, 306-0698, Japan

AVT3885(BRM) #9999



Printed in Japan  
VP 9910  
DP 3052

# AV-T3885<sub>(BR)</sub> STANDARD CIRCUIT DIAGRAM

## ■ NOTE ON USING CIRCUIT DIAGRAMS

### 1. SAFETY

The components identified by the  $\Delta$  symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

### 2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- |   |  |
|---|--|
| (1) Input signal  | : PAL Colour bar signal  |
| (2) Setting positions of each knob/button and variable resistor | : Original setting position when shipped   |
| (3) Internal resistance of tester                               | : DC 20k $\Omega$ /V   |
| (4) Oscilloscope sweeping time                                  | : H $\Rightarrow$ 20 $\mu$ S/div<br>: V $\Rightarrow$ 5mS/div<br>: Others $\Rightarrow$ Sweeping time is specified |
| (5) Voltage values  | : All DC voltage values  |
- \* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

### 3. INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209—R209

### 4. INDICATIONS ON THE CIRCUIT DIAGRAM

#### (1) Resistors

##### ● Resistance value

No unit	: [ $\Omega$ ]
K	: [K $\Omega$ ]
M	: [M $\Omega$ ]

##### ● Rated allowable power

No indication	: 1/10[W]
Others	: As specified

##### ● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

\* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

#### (2) Capacitors

##### ● Capacitance value

1 or higher	: [pF]
less than 1	: [ $\mu$ F]

##### ● Withstand voltage

No indication	: DC50[V]
AC indicated	: AC withstand voltage [V]
Others	: DC withstand voltage [V]

##### \* Electrolytic Capacitors

47/50[Example]: Capacitance value [ $\mu$ F]/withstand voltage[V]

##### ● Type

No indication	: Ceramic capacitor
MY	: Mylar capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

##### (3) Coils

No unit	: [ $\mu$ H]
Others	: As specified

##### (4) Power Supply

	: B1
	: B2(12V)
	: 9V
	: 5V

\* Respective voltage values are indicated

##### (5) Test point

	: Test point
	: Only test point display

##### (6) Connecting method

	: Connector
	: Wrapping or soldering
	: Receptacle

##### (7) Ground symbol

	: LIVE side ground
	: ISOLATED(NEUTRAL) side ground
	: EARTH ground
	: DIGITAL ground

## 5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ( $\perp$ ) side GND and the ISOLATED(NEUTRAL) : ( $\nwarrow$ ) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus ( oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

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CRT SOCKET PWB CIRCUIT DIAGRAM

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FRONT CONTROL PWB PATTERN

LINE FILTER PWB PATTERN

AV SELECTOR PWB PATTERN

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SIDE PIN PWB PATTERN

CRT SOCKET PWB PATTERN

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## SEMICONDUCTOR SHAPES

### TRANSISTOR

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				CHIP TR 

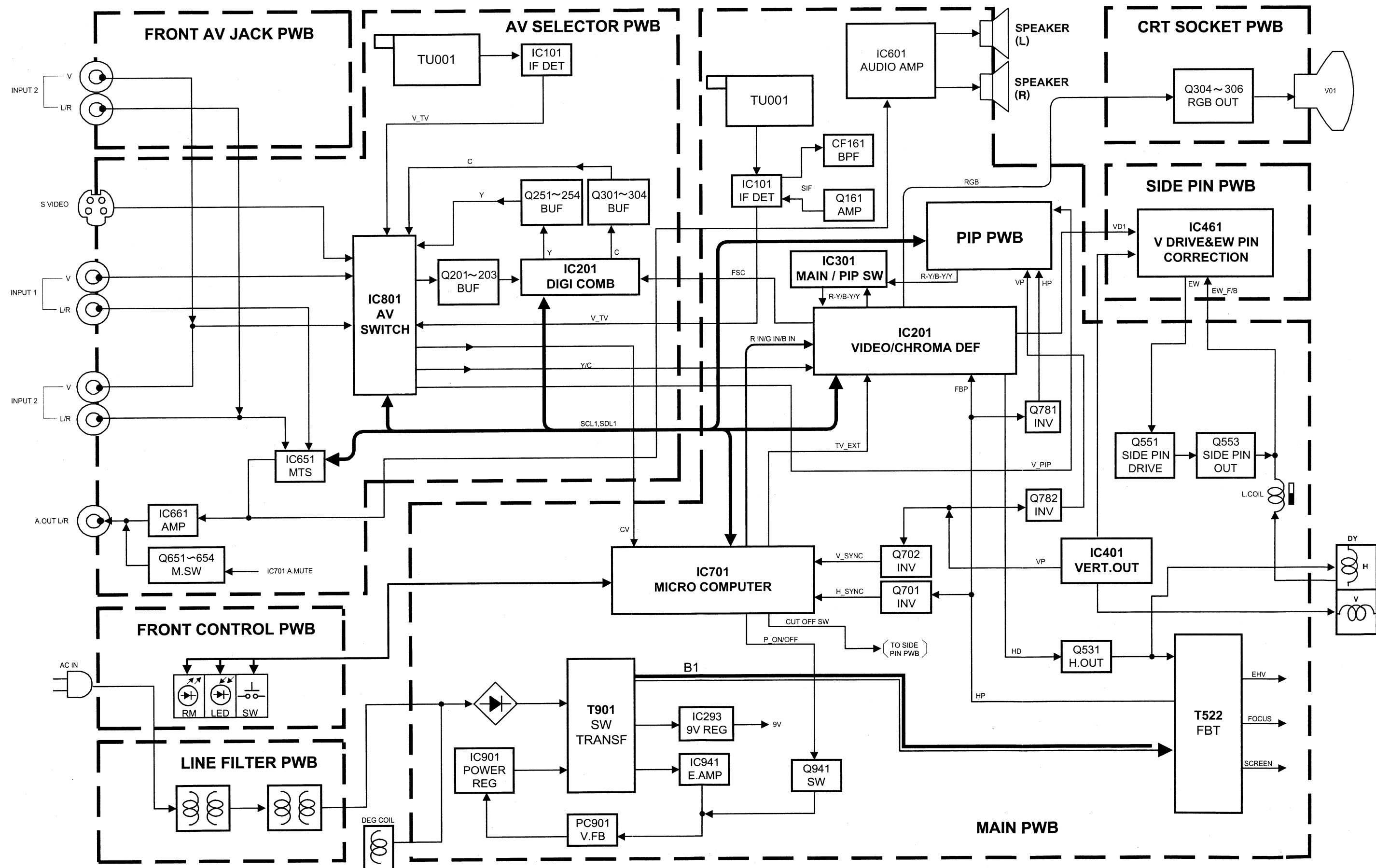
### IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

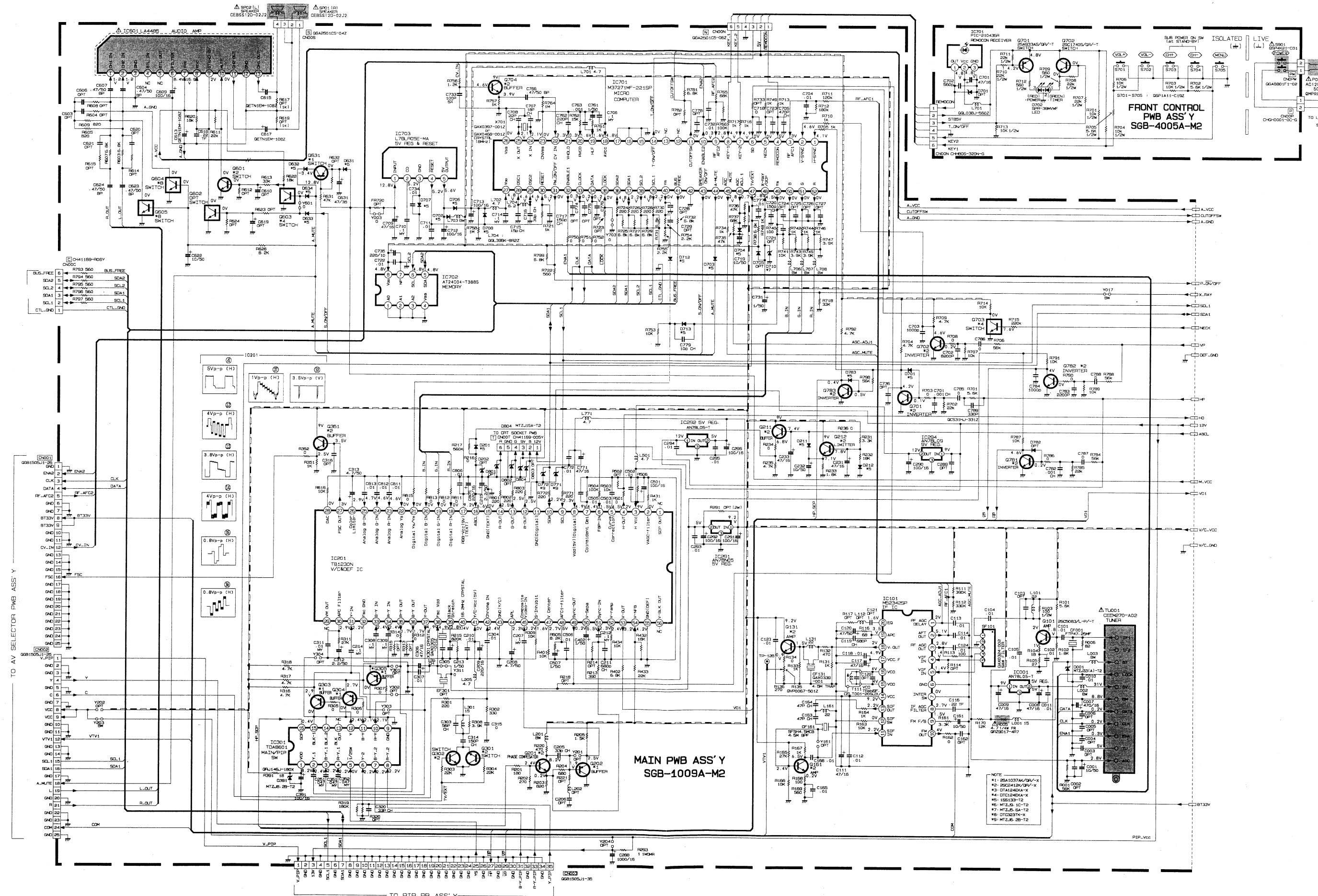
### CHIP IC

TOP VIEW		

## BLOCK DIAGRAM



# CIRCUIT DIAGRAMS AND PATTERN DIAGRAMS MAIN PWB AND FRONT CONTROL PWB CIRCUIT DIAGRAMS





The diagram is a detailed technical schematic of a television set, showing the internal circuitry and component layout. It is divided into several sections:

- LINE FILTER PWB ASS'Y (SGB-9104A-M2):** Located at the top left, this section shows the line filter circuitry, including components like GGA7901C1-02, LFB01, and LFB02.
- SIDE PIN PWB ASS'Y (SGB-8404A-M2):** Located at the top right, this section shows the side pin circuitry, including components like R461, R462, R463, R464, R465, R466, R467, R468, R469, R470, R471, R472, R473, R474, R475, R476, R477, R478, R479, R480, R481, R482, R483, R484, R485, R486, R487, R488, R489, R490, R491, R492, R493, R494, R495, R496, R497, R498, R499, R500, R501, R502, R503, R504, R505, R506, R507, R508, R509, R510, R511, R512, R513, R514, R515, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R527, R528, R529, R530, R531, R532, R533, R534, R535, R536, R537, R538, R539, R540, R541, R542, R543, R544, R545, R546, R547, R548, R549, R550, R551, R552, R553, R554, R555, R556, R557, R558, R559, R560, R561, R562, R563, R564, R565, R566, R567, R568, R569, R570, R571, R572, R573, R574, R575, R576, R577, R578, R579, R580, R581, R582, R583, R584, R585, R586, R587, R588, R589, R590, R591, R592, R593, R594, R595, R596, R597, R598, R599, R600, R601, R602, R603, R604, R605, R606, R607, R608, R609, R610, R611, R612, R613, R614, R615, R616, R617, R618, R619, R620, R621, R622, R623, R624, R625, R626, R627, R628, R629, R630, R631, R632, R633, R634, R635, R636, R637, R638, R639, R640, R641, R642, R643, R644, R645, R646, R647, R648, R649, R650, R651, R652, R653, R654, R655, R656, R657, R658, R659, R660, R661, R662, R663, R664, R665, R666, R667, R668, R669, R670, R671, R672, R673, R674, R675, R676, R677, R678, R679, R680, R681, R682, R683, R684, R685, R686, R687, R688, R689, R690, R691, R692, R693, R694, R695, R696, R697, R698, R699, R700, R701, R702, R703, R704, R705, R706, R707, R708, R709, R710, R711, R712, R713, R714, R715, R716, R717, R718, R719, R720, R721, R722, R723, R724, R725, R726, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R737, R738, R739, R740, R741, R742, R743, R744, R745, R746, R747, R748, R749, R750, R751, R752, R753, R754, R755, R756, R757, R758, R759, R760, R761, R762, R763, R764, R765, R766, R767, R768, R769, R770, R771, R772, R773, R774, R775, R776, R777, R778, R779, R780, R781, R782, R783, R784, R785, R786, R787, R788, R789, R790, R791, R792, R793, R794, R795, R796, R797, R798, R799, R800, R801, R802, R803, R804, R805, R806, R807, R808, R809, R810, R811, R812, R813, R814, R815, R816, R817, R818, R819, R820, R821, R822, R823, R824, R825, R826, R827, R828, R829, R830, R831, R832, R833, R834, R835, R836, R837, R838, R839, R840, R841, R842, R843, R844, R845, R846, R847, R848, R849, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863, R864, R865, R866, R867, R868, R869, R870, R871, R872, R873, R874, R875, R876, R877, R878, R879, R880, R881, R882, R883, R884, R885, R886, R887, R888, R889, R890, R891, R892, R893, R894, R895, R896, R897, R898, R899, R900, R901, R902, R903, R904, R905, R906, R907, R908, R909, R910, R911, R912, R913, R914, R915, R916, R917, R918, R919, R920, R921, R922, R923, R924, R925, R926, R927, R928, R929, R930, R931, R932, R933, R934, R935, R936, R937, R938, R939, R940, R941, R942, R943, R944, R945, R946, R947, R948, R949, R950, R951, R952, R953, R954, R955, R956, R957, R958, R959, R960, R961, R962, R963, R964, R965, R966, R967, R968, R969, R970, R971, R972, R973, R974, R975, R976, R977, R978, R979, R980, R981, R982, R983, R984, R985, R986, R987, R988, R989, R990, R991, R992, R993, R994, R995, R996, R997, R998, R999, R1000, R1001, R1002, R1003, R1004, R1005, R1006, R1007, R1008, R1009, R1010, R1011, R1012, R1013, R1014, R1015, R1016, R1017, R1018, R1019, R1020, R1021, R1022, R1023, R1024, R1025, R1026, R1027, R1028, R1029, R1030, R1031, R1032, R1033, R1034, R1035, R1036, R1037, R1038, R1039, R1040, R1041, R1042, R1043, R1044, R1045, R1046, R1047, R1048, R1049, R1050, R1051, R1052, R1053, R1054, R1055, R1056, R1057, R1058, R1059, R1060, R1061, R1062, R1063, R1064, R1065, R1066, R1067, R1068, R1069, R1070, R1071, R1072, R1073, R1074, R1075, R1076, R1077, R1078, R1079, R1080, R1081, R1082, R1083, R1084, R1085, R1086, R1087, R1088, R1089, R1090, R1091, R1092, R1093, R1094, R1095, R1096, R1097, R1098, R1099, R1100, R1101, R1102, R1103, R1104, R1105, R1106, R1107, R1108, R1109, R1110, R1111, R1112, R1113, R1114, R1115, R1116, R1117, R1118, R1119, R1120, R1121, R1122, R1123, R1124, R1125, R1126, R1127, R1128, R1129, R1130, R1131, R1132, R1133, R1134, R1135, R1136, R1137, R1138, R1139, R1140, R1141, R1142, R1143, R1144, R1145, R1146, R1147, R1148, R1149, R1150, R1151, R1152, R1153, R1154, R1155, R1156, R1157, R1158, R1159, R1160, R1161, R1162, R1163, R1164, R1165, R1166, R1167, R1168, R1169, R1170, R1171, R1172, R1173, R1174, R1175, R1176, R1177, R1178, R1179, R1180, R1181, R1182, R118

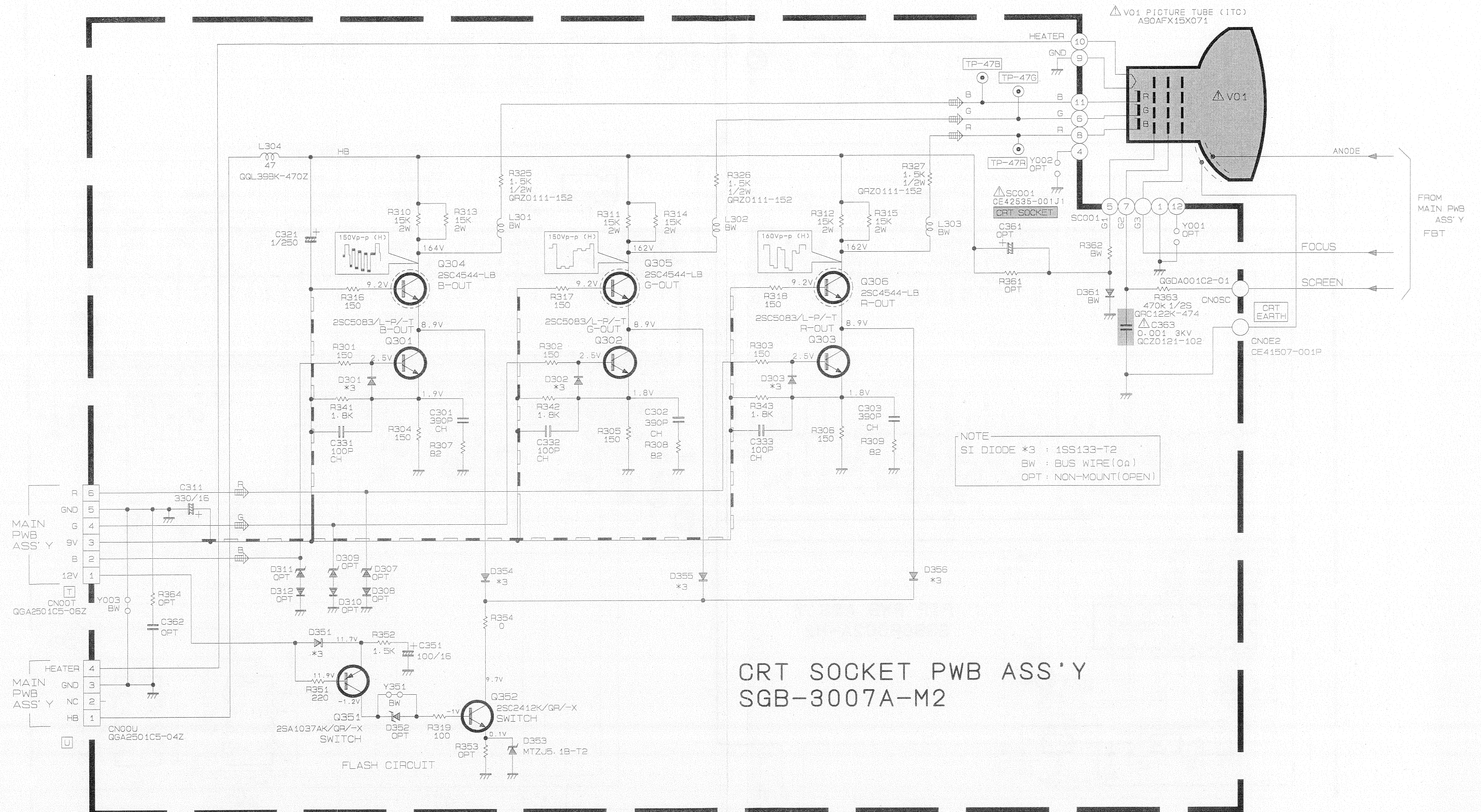


[illegible]





## CRT SOCKET PWB CIRCUIT DIAGRAM





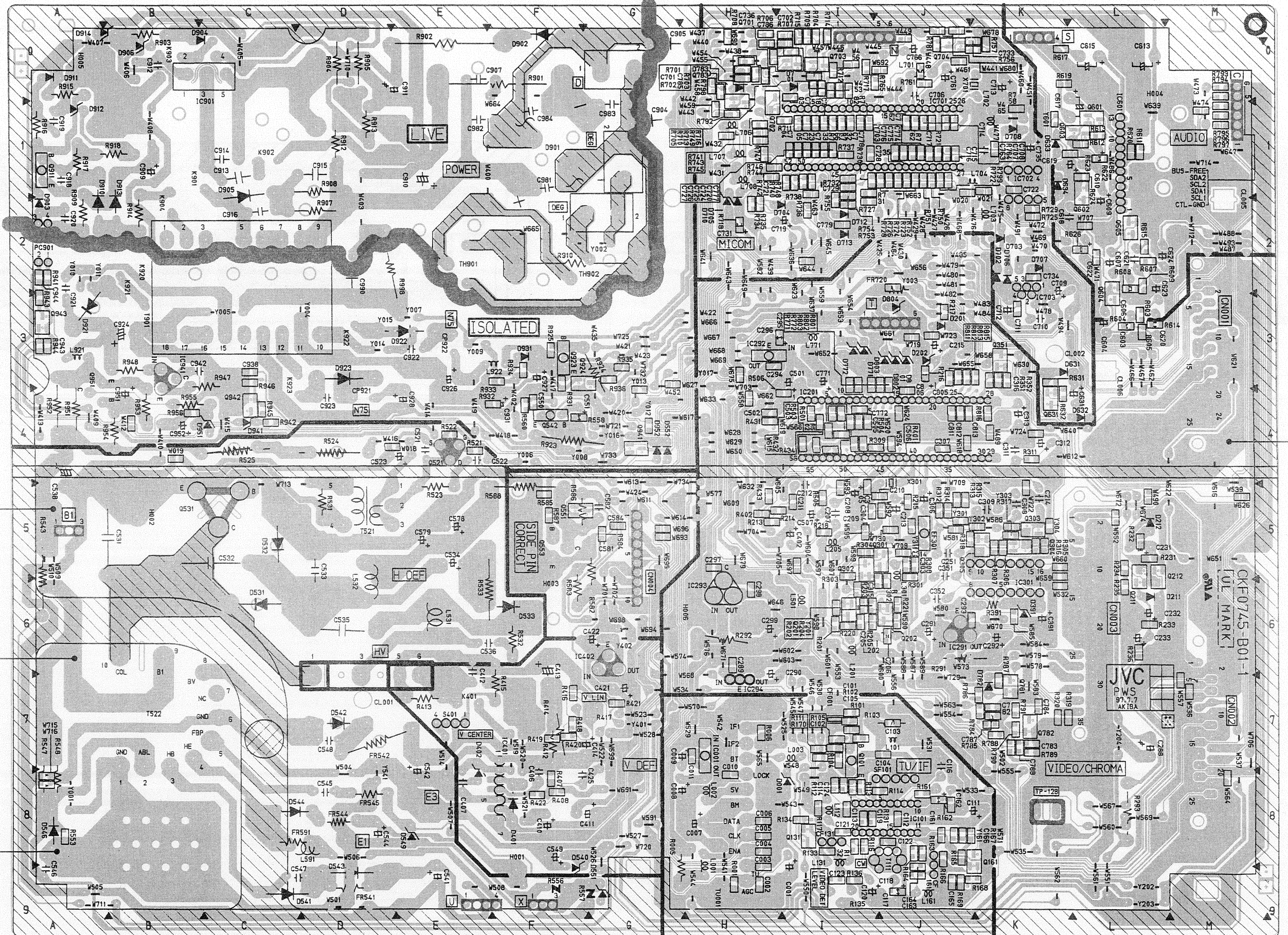
MAIN PWB PATTERN

AV-T3885

AV-T3885

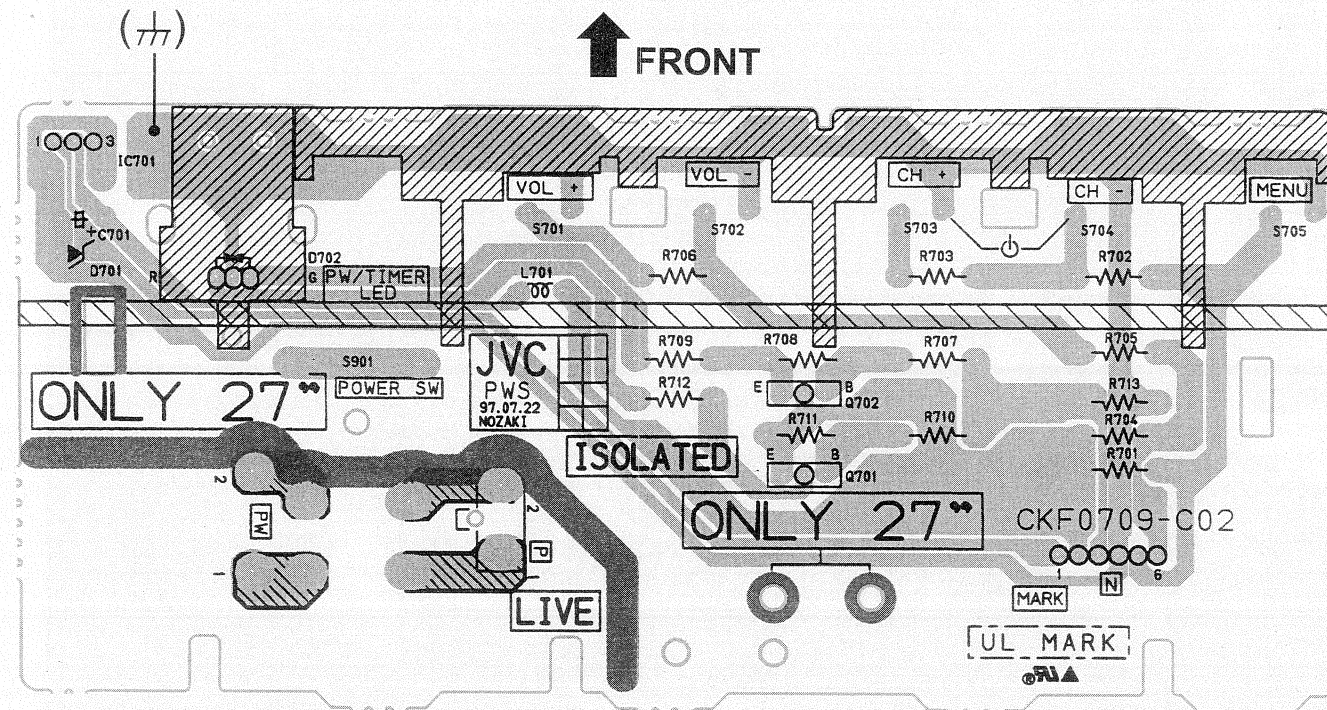
FRONT

TP-91  
(B1)

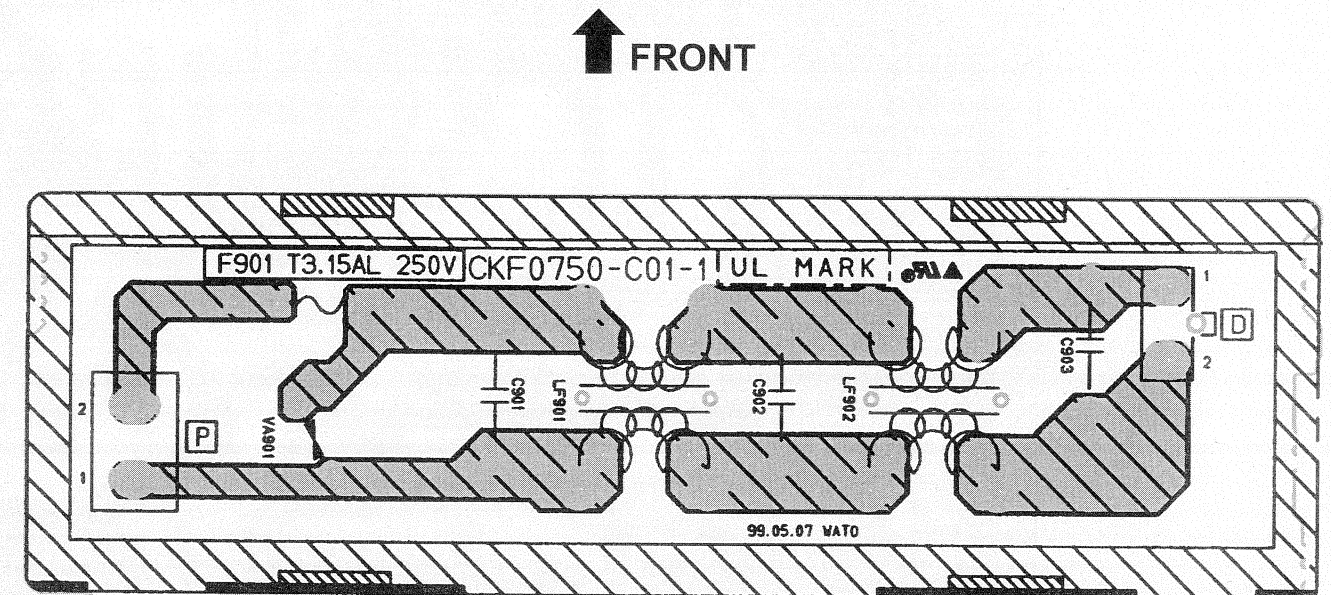




## FRONT CONTROL PWB PATTERN

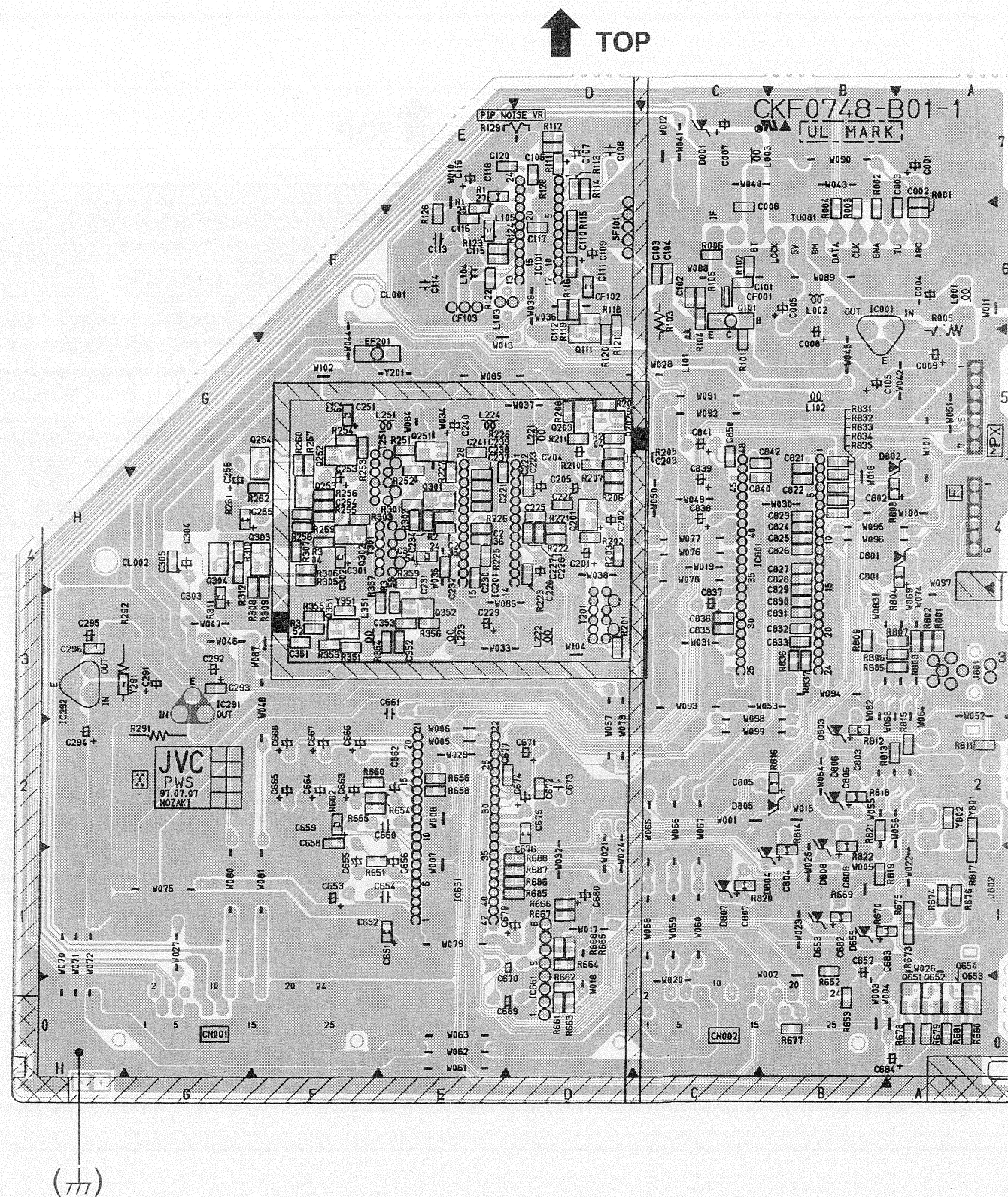


## LINE FILTER PWB PATTERN

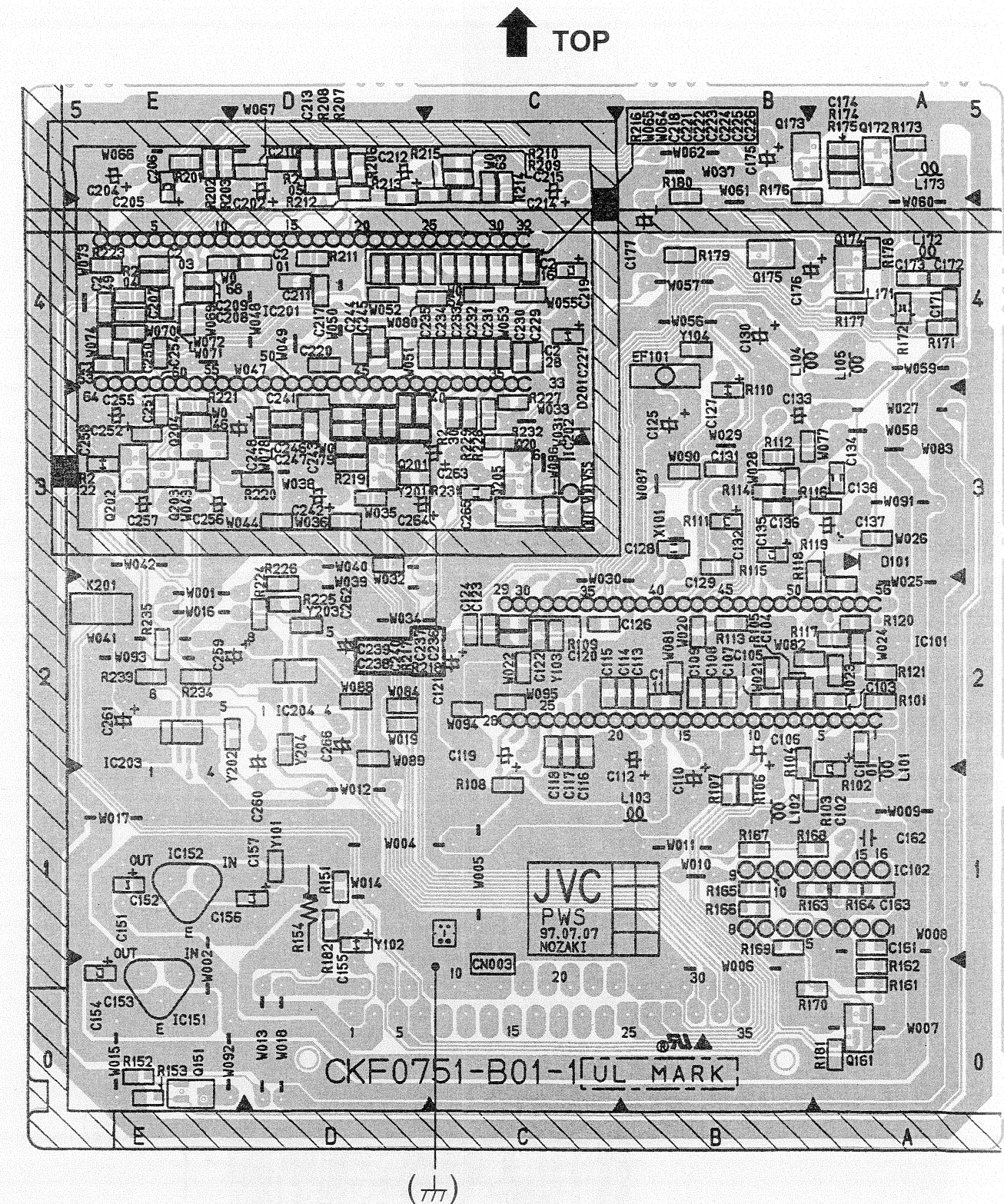




## AV SELECTOR PWB PATTERN

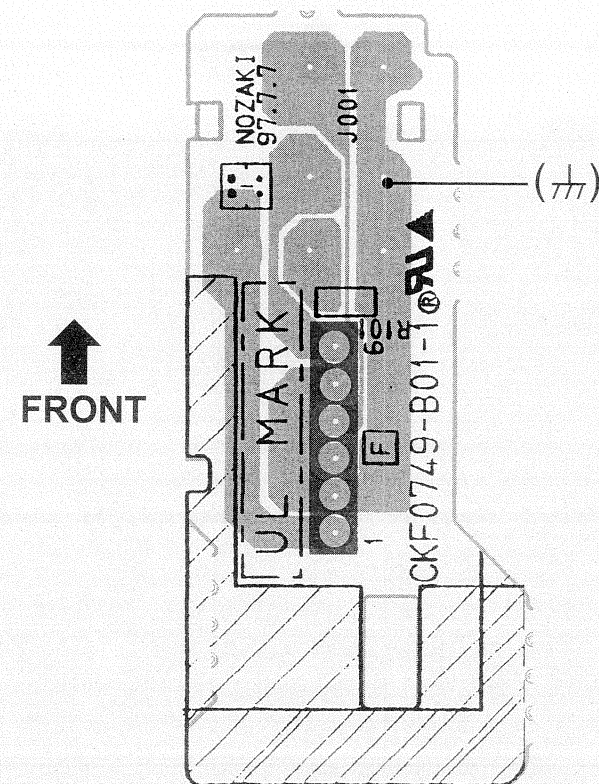


## PIP PWB PATTERN

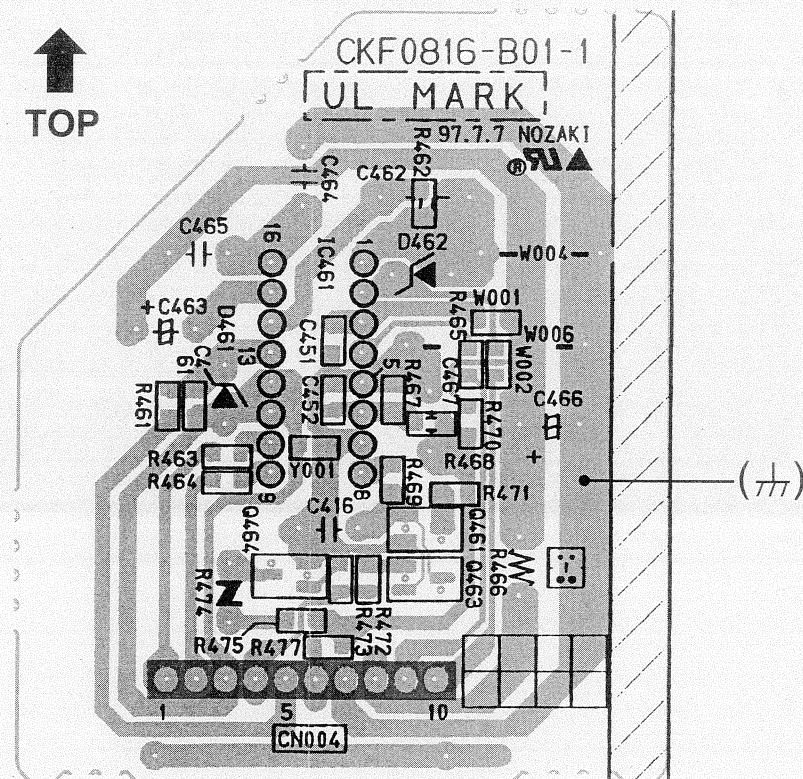




FRONT AV JACK PWB PATTERN



SIDE PIN PWB PATTERN



CRT SOCKET PWB PATTERN

